CDP-307ESD/950

SERVICE MANUAL

US Mode
E Mode
CDP-307ES
US Mode
Canadian Mode
AEP Mode
CDP-95

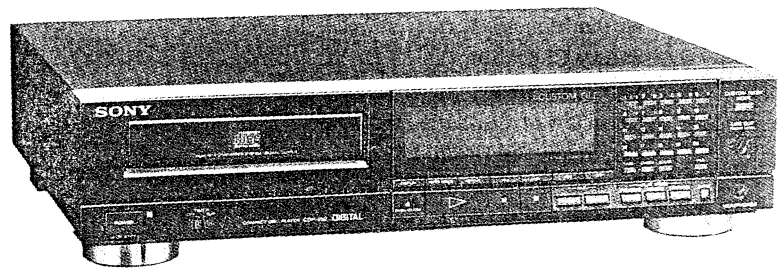

Photo: CDP-950

SPECIFICATIONS

Compact disc player

System — Compact disc digital audio system
Disc — Compact disc
Laser — Semiconductor laser (λ = 780 nm)
Emission duration — Continuous
Laser output — Less than 44.6 μW
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response — 2 – 20,000 Hz ±0.3dB
Signal to noise ratio — More than 104 dB
Dynamic range — More than 95 dB
Harmonic distortion — Less than 0.003% (1 kHz)
Channel separation — More than 95 dB (1 kHz)
Wow and flutter — Below measurable limit

Outputs jacks

LINEOUT (FIXED) (phono jacks)	Output level 2V (at 50 kilohms) Load impedance over 10 kilohms
LINEOUT (VARIABLE) (phono jacks)	Output level max. 2 V (at 50 kilohms) Load impedance over 50 kilohms
HEADPHONES (stereo phone jack)	Output level max. 15 mW Load impedance 32 ohms
DIGITAL OUT (COAXIAL) (phono jacks)	Output level 0.5Vp-p (at 75 ohms) Load impedance 75 ohms (CDP-950: Canadian, AEP model) (CDP-307ESD)

Disc

Track pitch — 1.6 μm
Sampling frequency — 44.1 kHz
Quantization — 16 bit linear quantizing/channel
Modulation system — EFM
Transfer rate — 2.03 Mbit/sec. (before modulation)

General

Power requirements
US, Canadian model: 120V AC, 60 Hz
AEP model: 220V AC, 50/60Hz
E model: 110, 120, 220, 240 V AC, 50/60Hz
Power consumption — 13 W
Dimensions — Approx. 430 × 105 × 340 mm (w/h/d) (17 × 4 1/4 × 13 1/2 inches)
Weight — Approx. 5.6 kg (12 lb 6 oz), net

Supplied accessories

Remote commander (1)
Audio signal connecting cord (1)
Sony SUM-3 (NS) batteries (2)

Remote commander (RM – D650)

Remote control system — Infrared control
Power requirements — 3V DC with two size AA (R6) batteries
Dimensions — Approx. 62 × 20 × 168.5 mm (w/h/d) (2 1/2 × 13/16 × 6 3/4 inches)
Weight — Approx. 130 g (5 oz) incl. batteries

MICROFILM

COMPACT DISC PLAYER

SONY

AUD

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SAFETY-RELATED COMPONENT WARNING!!

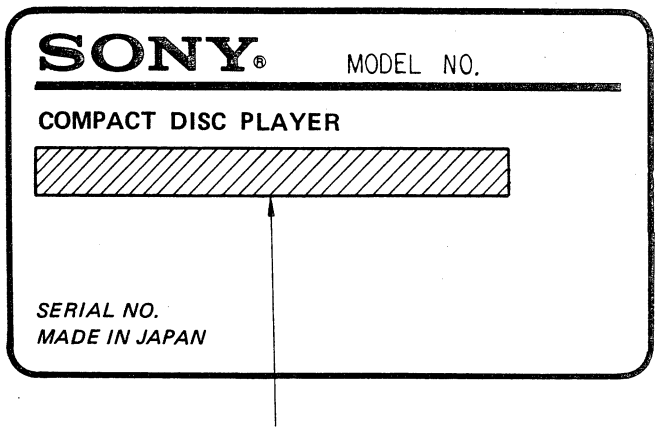
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MODEL IDENTIFICATION

– Specification Labels –



US, Canadian model: AC: 120V 60Hz 13W
AEP model: AC: 220V~50/60Hz 13W
E model: AC: 110, 120, 220, 240V~50/60Hz 13W

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

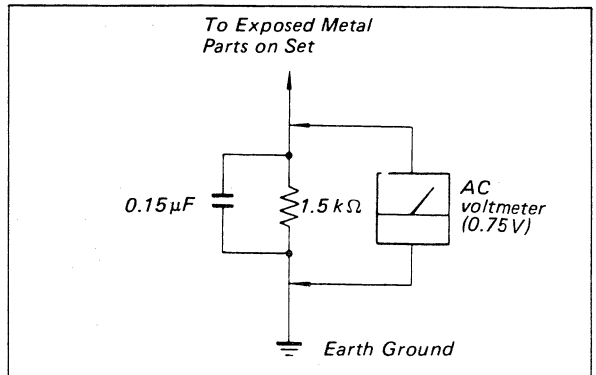


Fig. A. Using an AC voltmeter to check AC leakage.

– SERVICING NOTE –

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

1. Laser Diode Properties
   - Material: GaAlAs
   - Wavelength: 780 nm
   - Emission Duration: continuous
   - Laser Output: max. 44.6 μW*

     * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optiocal Pick-up Block (including APC borad).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

1. Laser-didoe data
   - Materiale: GaAlAs
   - Bølgelængde: 780 nm
   - Udstråling: Kontinuerlig
   - Laseroutput: Max. 0,4 mW*

     * Målt i 1,6 mm afstand fra overfladen af objektivlinsen på den optiske pick-up enhed.

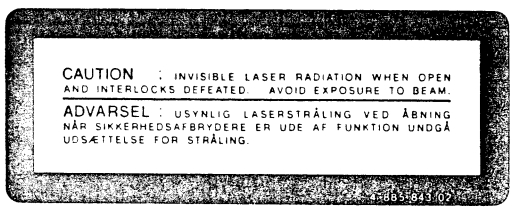
   - Klassifikation: Klasse IIIb.

2. Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laserdioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

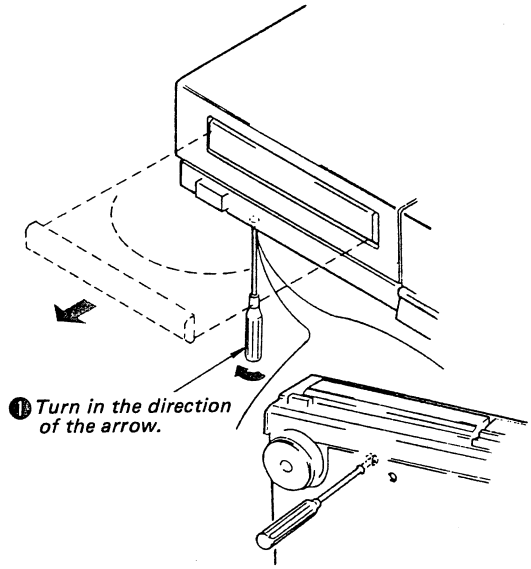
Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.

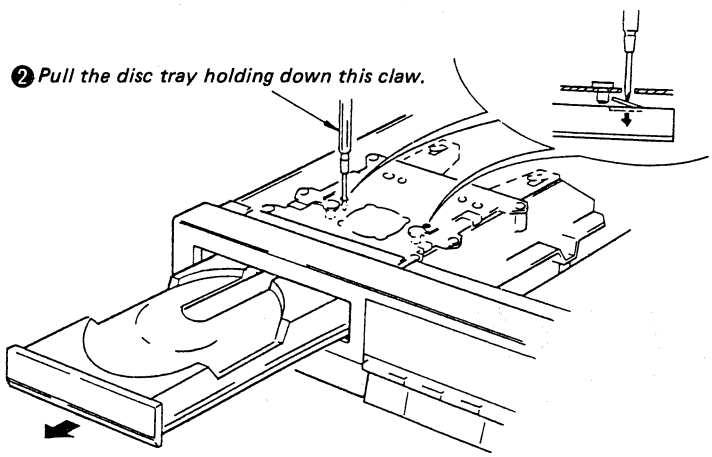
VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Caution: When you work, keep the set horizontal.

DISC TRAY REMOVAL



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

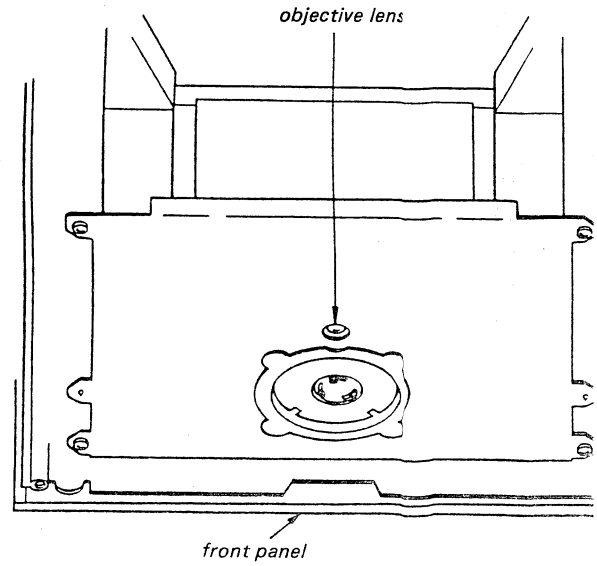
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SERCH OPERATION CHECK

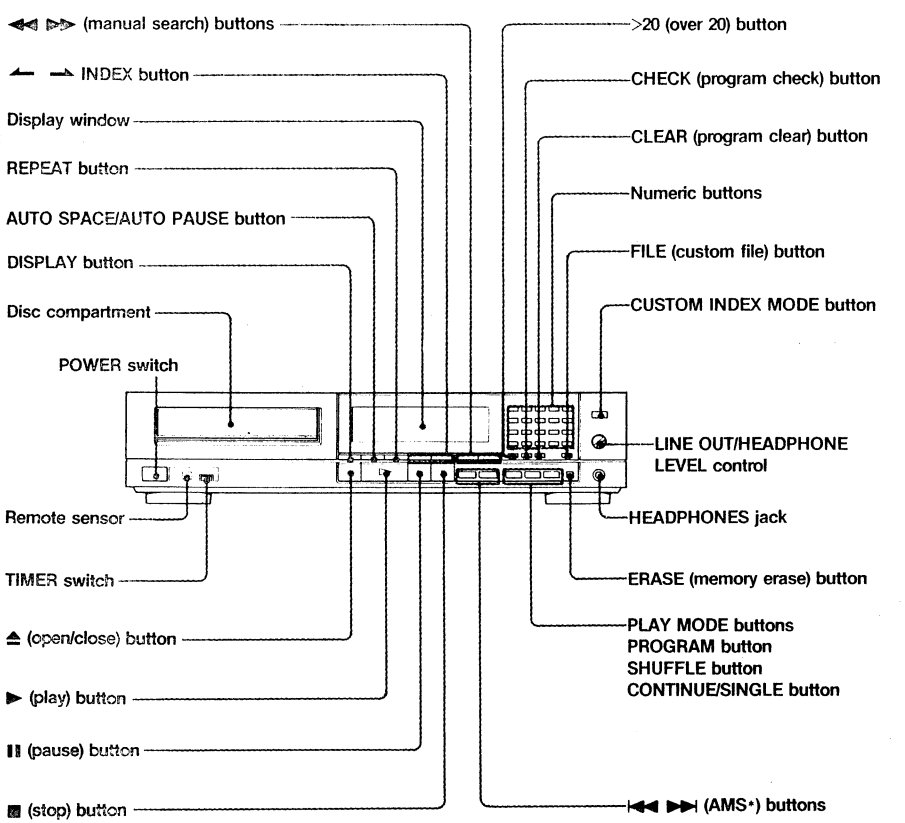
1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objecting lens.



① *Confirm that laser beam is spread.*
② *Up and down motion of the objective lens. (3 times)*

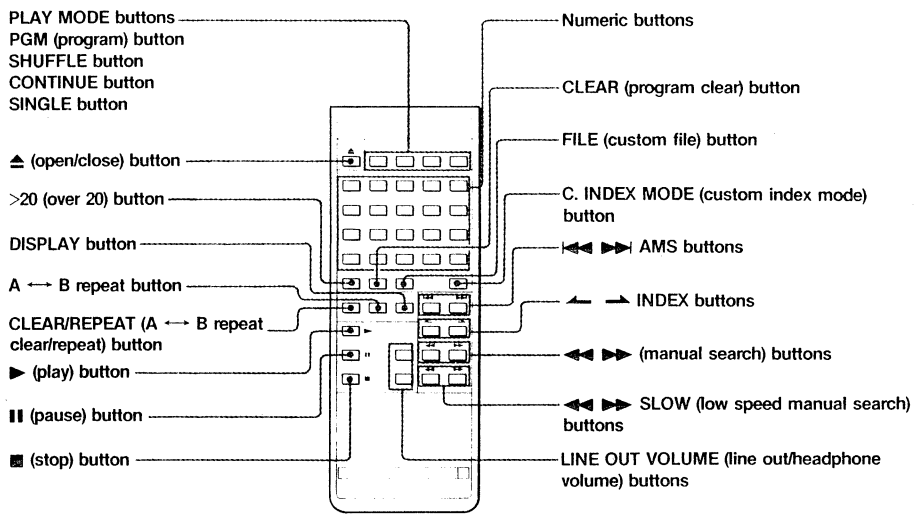
Location of Controls

Front Panel



* AMS is an abbreviation of Automatic Music Sensor.

Remote Commander


PLAY MODE buttons
PGM (program) button
SHUFFLE button
CONTINUE button
SINGLE button
⏏ (open/close) button
>20 (over 20) button
DISPLAY button
A ⟷ B repeat button
CLEAR/REPEAT (A ⟷ B repeat clear/repeat) button
▶ (play) button
❚❚ (pause) button
■ (stop) button
Numeric buttons
CLEAR (program clear) button
FILE (custom file) button
C. INDEX MODE (custom index mode) button
⏮ ⏭ AMS buttons
— → INDEX buttons
◀◀ ▶▶ (manual search) buttons
◀◀ ▶▶ SLOW (low speed manual search) buttons
LINE OUT VOLUME (line out/headphone volume) buttons

Remote Control Operation

Once the POWER switch is turned on, you can remotely control various functions of the player with the supplied remote commander.

Operations which is performed only with the remote commander

- Manual search at low speed
- A ⟷ B repeat

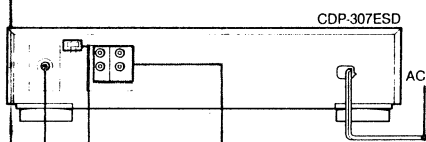
Operations which cannot be performed with the remote commander

- Turning the power on and off
- Setting and releasing auto pause function
- Setting and releasing auto space function
- Checking the programmed selections
- Writing a comment about a disc (disc memo function)
- Clearing custom indexes
- Clearing all custom files
- Timer activated play

Notes on the remote commander and remote control operation

- Keep the commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the commander casing, particularly when replacing the batteries.
- To avoid a malfunction, do not simultaneously depress two or more buttons.
- Avoid exposure of the remote sensor to direct sunlight or lighting apparatus. Such exposure can cause a malfunction.

Description on the Rear Panel



LINE OUT (audio output) jacks
FIXED: Output the signal at the fixed level.
VARIABLE: Output the signal at the level set by the LINE OUT/HEADPHONE LEVEL control (or LINE OUT VOLUME buttons on the remote commander).

OUTPUT SELECTOR
Selects the output connectors to be used.
DIGITAL OUT: Digital signal is output through the DIGITAL OUT jacks. No signal is output through the LINE OUT jacks or the HEADPHONES jack.
LINE OUT: Audio signal is output through the LINE OUT jacks or the HEADPHONES jack. No signal is output through the DIGITAL OUT jacks. (Be sure to set to this position when you listen to the music through the headphones or the LINE OUT jacks.)

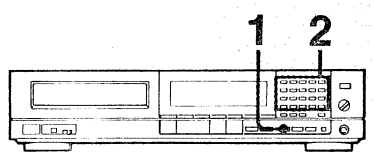
DIGITAL OUT (digital audio output) jack
Output the digital audio signals.

Note
If the LINE OUT/HEADPHONE LEVEL control is turned while recording through the VARIABLE LINE OUT jacks, the level of the recorded sound will be different from that set by the recording level controls of the tape deck.

Playing in the Desired Order—Program Play

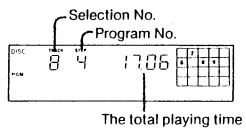
You can play up to 20 selections in the desired order.

Programming Selections Directly



1 **Press PROGRAM.**

2 **Press the numeric buttons** for the desired selection in the order to be programmed.



To play the programmed selections
Press ▶.

Adding selections to a program during program play
Press the numeric buttons during play. You can add selections up to 20.
• Pause cannot be programmed during play.

When each selection ends during program play
That selection number disappears from the display, but the program itself remains. If you press ▶, you can play the same program again.

Note
If you press PROGRAM during the continuous play, single play or shuffle play (page 9), the selection currently being played is programmed as the first selection in the program.

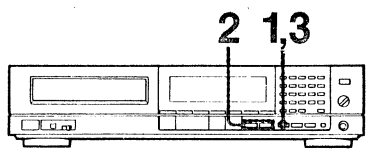
Program is cleared in the following cases
• ■ is pressed twice during program play.
• CONTINUE/SINGLE, SHUFFLE or ⏏ is pressed.

Space between selections during program play
There is a blank of 1 second between each programmed selection. However, when consecutive selections (e.g. 4th → 5th) are programmed, the space on the disc is inserted as it is.
To record program play on a tape, use the auto space function so that a blank of 3 seconds is inserted between selections.

What is this indication?
"- - - -" indication appears on the display window instead of the numbers, if a selection numbered 21 or higher is programmed or the total playing time of the programmed selection exceeds 100 minutes.

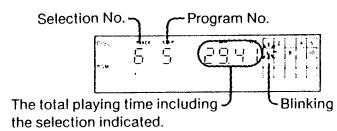
Programming Selections while Checking the Total Programming Time (Program Edit)

This function is useful for recording, as you can adjust the total playing time to the tape duration.



1 **Press PROGRAM.**

2 **Choose the desired selection** to be programmed with ⏮ or ⏭.
The designated selection number blinks in the music calendar.



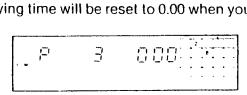
If the playing time of that selection is not appropriate, choose another selection.

3 **Press PROGRAM.**
The designated selection is programmed and the blinking number lights up steadily.

4 **Repeat steps 2 and 3** to program additional selections in the desired order.

To play the programmed selections
Press ▶.

To program pause
During programming, press ❚❚ at the desired point between selections. When the program reaches it, the disc stops and stands by until you press ❚❚ agian.
This function is helpful when changing the tape during recording.
The total playing time will be reset to 0.00 when you press ❚❚.



P (pause) has been programmed.
Its turn is third.

Checking the Programmed Selections

(possible only on the main unit)
Press CHECK.
Each time you press CHECK, the selections are displayed in the order they are programmed. At the last selection, "END" is displayed.

- You can check the programmed selections during play.
- Selection numbers over 20 cannot be displayed in the music calendar, but track numbers and program numbers are displayed in the window.

Clearing the Programmed Selections

Clearing the whole program
Press ■ once during stop, or twice during play.
All the selections are cleared.

Clearing the last selections in the program
(operated only on the main unit)
Press CLEAR during stop.
The last selection is cleared each time CLEAR is pressed.

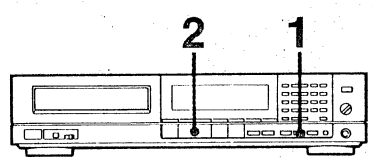
Clearing a specific selection
(possible only on the main unit)

1 **Press CHECK** repeatedly until the selection to be cleared is displayed.
2 **Press CLEAR** while the selection number is displayed.
The selection is cleared from the program.
You cannot clear the selection currently being played.

Playing in a Random Order—Shuffle Play

You can play up to 99 selections in a random order.

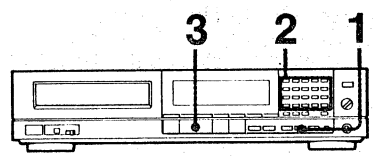
Playing All the Selections in a Random Order



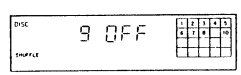
1 **Press SHUFFLE.**
2 **Press ▶.**
Shuffle play begins.

To cancel shuffle play mode
Press CONTINUE/SINGLE (or CONTINUE on the remote commander).

Playing Only the Desired Selections in a Random Order—Delete Shuffle Play

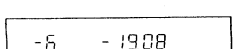


1 **Press SHUFFLE.**
2 **Press the numeric buttons** of the undesired selections you wish to delete.
The selections disappear from the music calendar.



3 **Press ▶.**

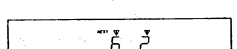
To display the remaining number of selections and time of the program
Press DISPLAY twice.



If pause is programmed, the remaining number of selections and time to the next programmed pause is displayed.

To return to the normal display, press DISPLAY twice, or three times (if a disc memo* is memorized).
* See page 11.

To display the next selection number and the succeeding selection number in the program
Press DISPLAY three times.



To return to the normal display, press DISPLAY once, or twice (if a disc memo is memorized).

What is this indication?
This indication appears while the player is "shuffling" the selections.

If you press SHUFFLE during play
Shuffle play begins from the selection being played.

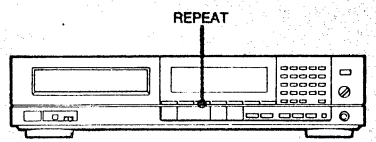
To record shuffle play
During shuffle play, a blank of one second is inserted between each selection.
To record shuffle play, use the auto space function so that a blank of 3 seconds is inserted between selections.

When delete shuffle play ends
Delete shuffle play mode is released and the player stands by in the shuffle play mode for the whole disc.

If you press the numeric buttons during shuffle play mode
The selections of those numbers are also deleted, but the selection being played cannot be deleted.

To play a selection which has been deleted
Press the numeric button of that selection again.
The selection number and ON appear in the display.

Playing Repeatedly—Repeat Play



You can repeat the whole disc, a single selection, all the programmed selections, shuffle paly, A ⟷ B repeat play, or play between two custom indexes.

Press REPEAT during play or pause.
Repeat play begins according to the current play mode.

Play mode	Selections to be repeated
Continue	All the selections
Single	The selection being played
Program	Programmed selections in the programmed order
Shuffle	All the selections, reshuffled each time

For the A ⟷ B repeat play, see the description below. For the repeat play between two custom indexes, see pages 13.

To cancel repeat play mode
Press REPEAT.

Repeating a Particular Portion (A ⟷ B Repeat)

(Possible with the remote commander)
You can repeat any deaired portion on a disc.

1 **Press A ⟷ B at the starting point (A) of the repeat play.**
"A SET" appears in the window.
2 **Continue playing, or press ▶▶ or ▶▶| to locate the desired ending point (B).**
3 **Press A ⟷ B.**
"A - B REP" appears in the window, and play begins from the point A.

To cancel A ⟷ B repeat
Press CLEAR/REPEAT (or REPEAT on the player).

Going back to the point A from any point on the disc
1 Press A ⟷ B at the starting point (A) during play.
2 Press ▶ when you desire to return to the registered point. Play begins again from the point A.

A ⟷ B repeat and auto pause function
If the A ⟷ B repeat play is activated while the auto pause function is turned on, the player enters the pause mode each time the point A is reached. Press ❚❚ to resume play.

To go back to the point A during A ⟷ B repeat play
Press ▶.

If you press REPEAT during delete shuffle play
When the desired selections end, shuffle repeat play of all the selections starts.

On Custom Files

The CD player incorporates a memory in which you can store three types of informations called "custom files"

Three custom files you can store in memory

Disc memo	A comment of up to 10 letters, which you can assign to each individual disc. (page 11)
Program bank	A programmed playing order you store in memory for a disc, so that the disc can be played always in a fixed order. (page 12)
Custom index	Index point you can assign to anywhere you want on a disc. (page 13)

How many discs can be assigned custom files?
You can give custom files to up to 226 discs.
- A disc memo can be given to a disc which already has a program bank or custom indexes.
- A program bank and custom indexes cannot both be given to a disc at the same time.

Memory backup for the custom files
Custom files, once memorized, are retained in the compact disc palyer's memory for approximately 1 month without AC power supply.

What is this indication?

FULL

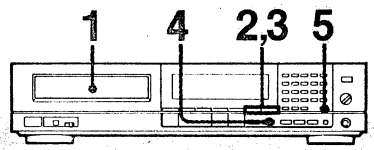
This indication appears when FILE is pressed while no custom file can be memorized for the disc currently put in the player. To make a custom file for the disc, clear the custom file of another disc.

To clear all custom files of a disc at once
Put the disc in the player and press ERASE. The disc memo and program bank (or the disc memo and custom indexes) are all cleared.

To clear custom files of all discs at once
Press POWER to turn on the player while keeping ERASE and FILE pressed.

Writing a Comment about a Disc
— Disc Memo Function

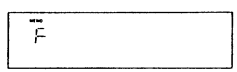
Using the disc memo function, you can write a comment of up to 10 letters about a disc. The memo appears in the window every time you put the disc in the player.
You can write one disc memo to a disc.



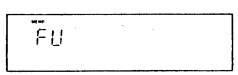
1 Put the disc in the disc compartment and press the disc compartment to close it.
Make sure that the total number of selections and the total playing time is displayed. **Then proceed as follows in the stop mode.**

2 Press ◀◀ or ▶▶.
A blinking cursor (indicating where a letter will be written) appears.

3 Press ◀◀ or ▶▶ until the desired letter appears.
Example: If ▶▶ is pressed 6 times



4 Press ▶▶| to move the cursor to the next position, and select the desired letter.



Repeat steps 3 and 4 to complete the memo.

5 Press FILE.
"FILE" appears in the window. After about 1 second, the memo you have written will be displayed.

Each time the disc is put in the compact disc player, the memo will be displayed.

Usable letters and symbols
For the disc memo, 46 letters and symbols and a space can be used. When the ◀◀/▶▶ button is pressed for the first time, the space appears. Each time ▶▶ is pressed, letters and symbols will appear in the following order.

(space) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
⋈ ヨ ＊ Ψ + / ı > < 9 8 7 6 5 4 3 2 1 0 –

Use ◀◀ to call up a previous character.

Clearing the Disc Memo

1 Put the disc whose memo you want to clear in the player.

2 Press ◀◀ or ▶▶ on the player.
The ◀◀/▶▶ button on the remote commander cannot be used.

3 Press CLEAR.

4 Press FILE.
"FILE CLR" is displayed in the window.

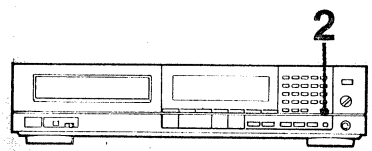
To rewrite letters or symbols
Before pressing FILE, move the cursor under the letter/symbol to be changed, and then select the desired letter/symbol using ◀◀/▶▶.

Where is the disc memo stored?
The disc memo is stored in the compact disc player's memory. When a disc is put in the player, the player identifies the disc by the total number of selections and the total playing time. If a disc memo has been made for that disc, the player retrieves the memo from its memory and displays it in the window. Therefore, as the disc memo is not located on the disc itself, **when the disc is put in another compact disc player, no memo will be displayed.**

Keeping the Program in Memory
—Program Bank Function

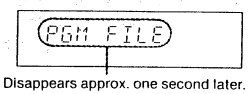
Memorizing a Program

After programming selections, you can keep the program memorized, so that the disc is played always in the fixed order. The memorized program is called "program bank".



1 **Program the selections** as you want (page 8).

2 **Press FILE.**



Disappears approx. one second later.

The program is memorized for the program bank.

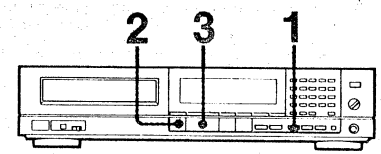
Only one program bank can be made for a disc.

Where is the program bank memorized?
The program bank is memorized in the compact disc player's memory. Therefore, if a disc for which you made a program bank is used with another compact disc player, **play using the program bank is not possible.**

What is this indication?

IX FILED — *This indication appears when the custom* index (page 13) has already been made for the disc. The program bank and the custom index cannot both be made for the same disc at the same time. To make the program bank, first clear the custom index.

Playing the Disc Using the Program Bank



1 **Press PROGRAM.**

2 **Press ⏏ and put the disc** in the disc compartment.

3 **Press ▶.**

Clearing the Program Bank

1 **Put the disc whose program bank is to be cleared in the player.**

2 **Press ■ to clear the program.**

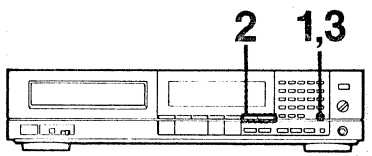
3 **Press FILE.**
"PGM CLR" is displayed, and the program bank is cleared.

To play a disc having a program bank in other modes
1 Set the player in the desired play mode.
2 Put the disc in the disc compartment.
3 Press ▶.
If you press ⏏ to close the compartment after setting the player in the continuous play mode or the single play mode, program bank play mode will be entered.

To play the selections in another program without clearing the program bank
Program the selections as you want before putting the disc in the disc compartment, or after putting the disc in the player and pressing ■. The disc will be played in the newly programmed order. You can program even during the program bank play.

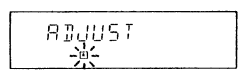
Giving a Disc Indexes as You Want
—Custom Index Function

A custom index is a special index that can be assigned to any position you want on the disc. If you assign custom indexes to the positions on a disc, you can easily locate the positions during play, or enjoy repeat play between two adjacent custom indexes.



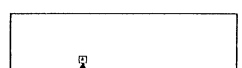
1 Press FILE where you want to assign a custom index during play.
The portion for 3 seconds from the point where you pressed FILE is played repeatedly (rehearsal play).

2 Adjust the repeat start point using ◀◀ or ▶▶.
Press ▶▶ to shift the repeat start point forward and ◀◀ to shift it backward. Pressing ◀◀/▶▶ 7 times shifts the point by approximately 1 second.



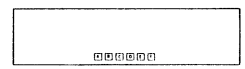
Blinks

3 Press FILE.
The custom index is assigned to the repeat start point.


Lights steadily

Playing from the Desired Custom Index

1 Press CUSTOM INDEX MODE.
The music calendar disappears.



2 Press the desired numeric button 1 (A) through 6 (F).
Play begins from the designated custom index.
When a custom index position is passed, it disappears from the A – F display.

Clearing Custom Indexes

1 Press CHECK so that the letter of the custom index you want to clear blinks.

2 Press CLEAR.
Custom indexes succeeding the cleared index will be shifted ahead one position.

The custom indexes cannot be cleared during program play.

Repeating the Portion between Two Custom Indexes

During play using custom indexes, you can repeat the desired portion between any two adjacent custom indexes.

1 Press CUSTOM INDEX MODE twice so that "SINGLE" is displayed in the window.

2 Press one of the numeric buttons 1 (A) to 6 (F) for the starting point of the repeat play.

3 Press REPEAT.

The portion between the custom index designated as the starting point and the next custom index is played repeatedly.

To cancel repeat play between custom indexes
Press REPEAT.

How many custom indexes can be assigned?
Up to 6 custom indexes from A to F can be assigned to a disc.

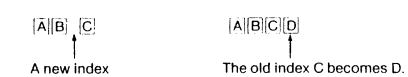
What is this indication?

PG FILED

This indication appears when a program bank has already been memorized for the disc. The program bank and the custom index cannot both be made for the same disc at the same time. To assign custom indexes, first clear the program bank.

To release rehearsal play
Press CLEAR. Normal play is resumed.

If a new custom index is assigned to a position preceding another index
Previously existing indexes will be shifted as follows.
Example: If you assign a new index between B and C.



If you press FILE in the pause mode
The rehearsal play is not made and the custom index is assigned immediately at the position where FILE is pressed.

To change the play mode during play using custom indexes
During play using custom indexes (in other words, while the music calendar is not displayed), the play mode switches from continuous play to single play and vice versa each time CUSTOM INDEX MODE is pressed.

To release play using custom indexes
Press one of the PLAY MODE buttons (PROGRAM, SHUFFLE or CONTINUE/SINGLE). The music calendar appears.

Where are the custom indexes memorized?
The custom indexes are memorized in the compact disc player's memory. Therefore, if a disc for which custom indexes are assigned is played in other compact disc player, **play using the custom indexes cannot be done.**

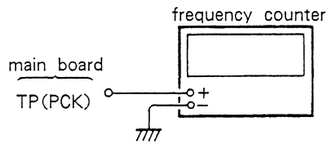
MEMO

SECTION 1
ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.

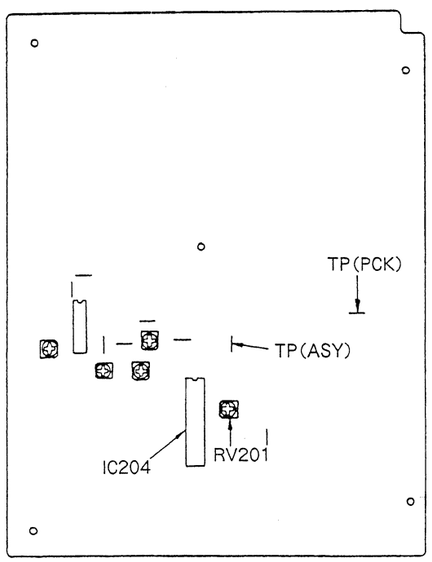
RF PLL Frequency Adjustment

Procedure :



1. Connect test point TP (ASY) to ground with jumper wire.
2. Turn POWER switch on.
3. Connect the frequency counter to test point TP(PCK).
4. Adjust RV201 so that the reading on frequency counter is 4.3218MHz±30kHz.
5. Remove lead wire connecting TP(ASY) and ground.
6. Put disc (YEDS-18) in and press ▷ button.
7. Confirm that the reading on frequency counter is 4.3218MHz.

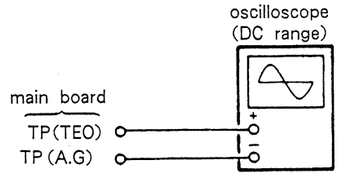
Adjustment Location : main board



E-F Balance Adjustment

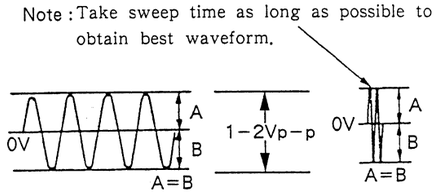
This adjustment should be made when replacing Optical Pick-up Block.

Procedure :

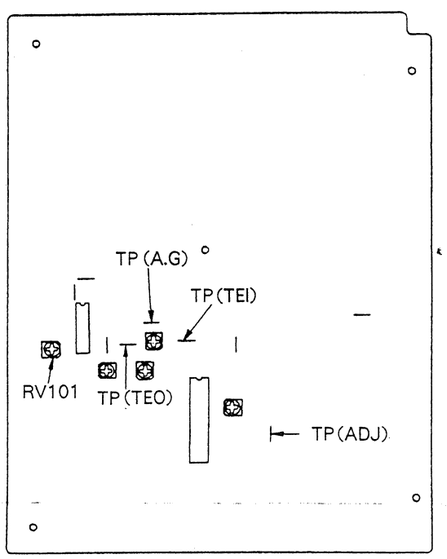


1. Connect test points TP (ADJ) and TP (TE I) to ground with jumper wires.
2. Connect oscilloscope to test points TP(TEO) and TP (A. G).
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and playback the 6th selection.
5. Adjust RV101 so that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V.

Note : Take sweep time as long as possible to obtain best waveform.

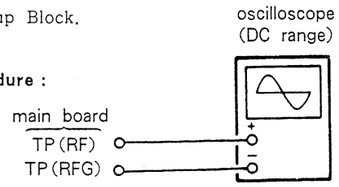


Adjustment Location : main board



Focus Bias Adjustment

This adjustment should be made when replacing Optical Pick-up Block.

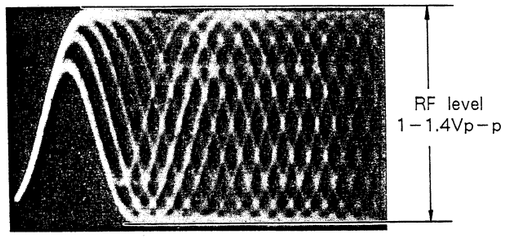


Procedure :

1. Connect oscilloscope to test points TP(RF) and TP (RF G).
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and playback the 6th selection.
4. Adjust RV104 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.

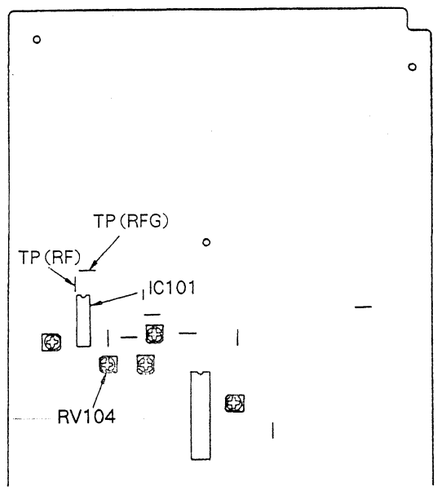
● RF Signal Reference Waveform (eye pattern)

VOLT/DIV : 200mV
TIME/DIV : 500nS



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Adjustment Location ; main boad



REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

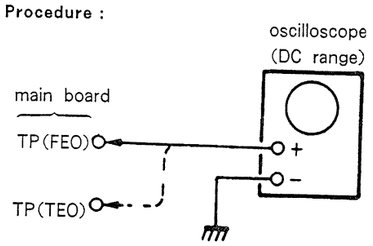
Symptoms \ Gain	Focus	Tracking
● The time until music starts becomes longer for STOP →▷PLAY or automatic selection (⏮ ⏭ buttons pressed. (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP→▷PLAY or auto-matic selection (⏮ ⏭ buttons pressed.)	–	low
● Disc table opens shortly after STOP→▷PLAY.	low or high	–
● Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
● More poise during 2-axis device oper-ation.	high	high

The following is a simple adjustment method.

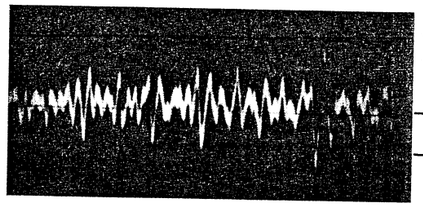
−Simple Adjustment−

Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure :

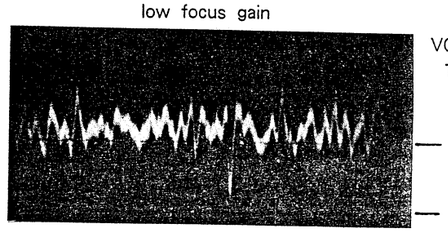


1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
2. Insert disc (YEDS−18) playback the 6th selection.
3. Connect oscilloscope to main board TP(FEO).
4. Adjust RV103 so that the waveform is as shown in the figure below. (focus gain adjustment)

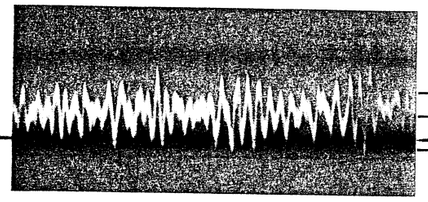


● Incorrent Examples (DC level changes more than on adjusted waveform)

low focus gain

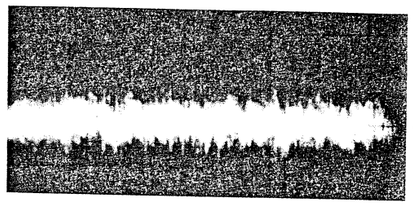


high focus gain



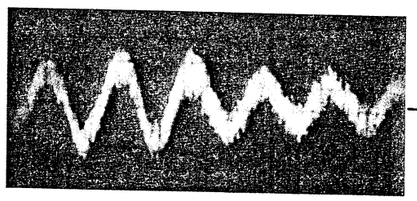
Tracking
w or high
−
low
high

5. Connect oscilloscope to main board TP(TEO).
6. Adjust RV102 so that the waveform is as shown in the figure below. (tracking gain adjustment)

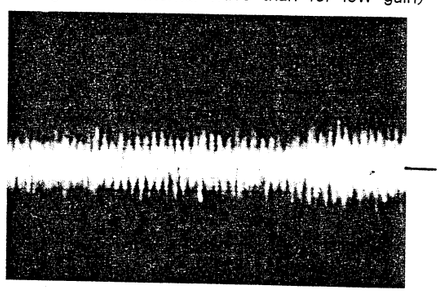


● Incorrect Examples (fundamental wave appears)

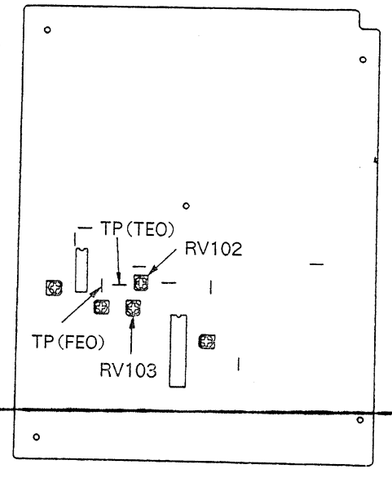
low tracking gain



high tracking gain
(higher fundamental wave than for low gain)

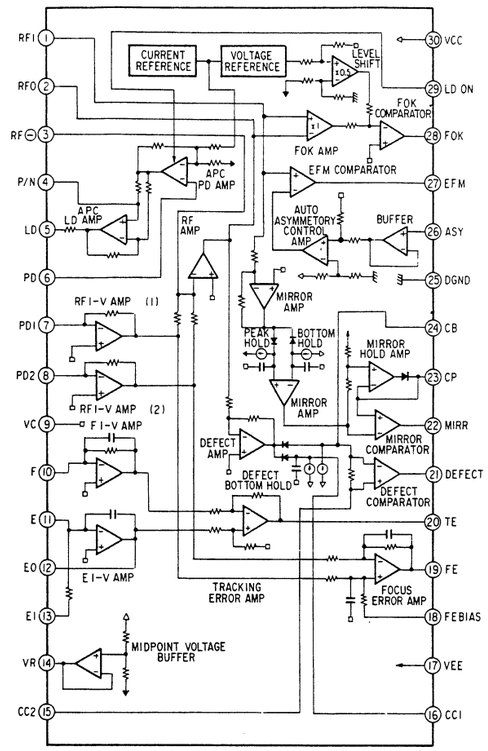


Adjustment Location : main board

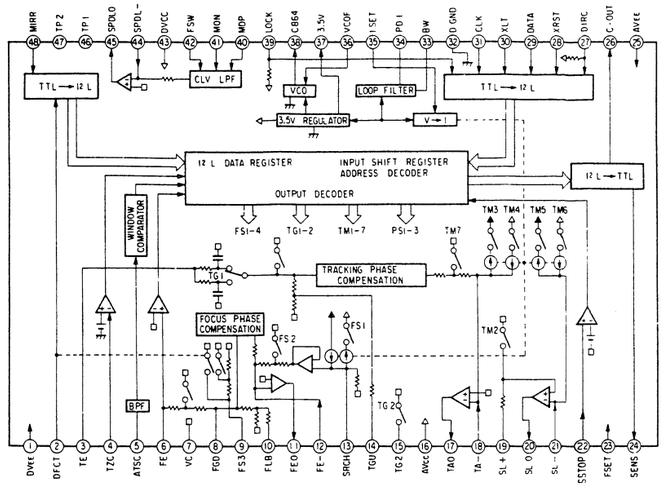


● IC BLOCK DIAGRAMS

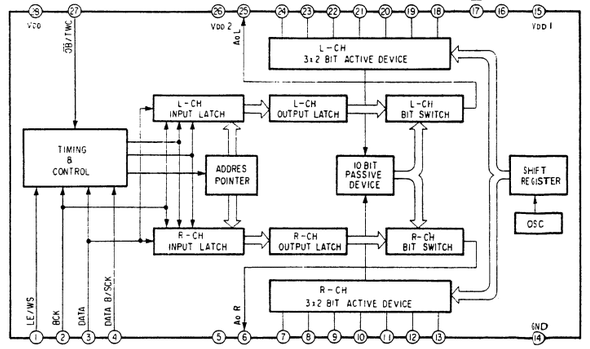
IC101
CXA1081S



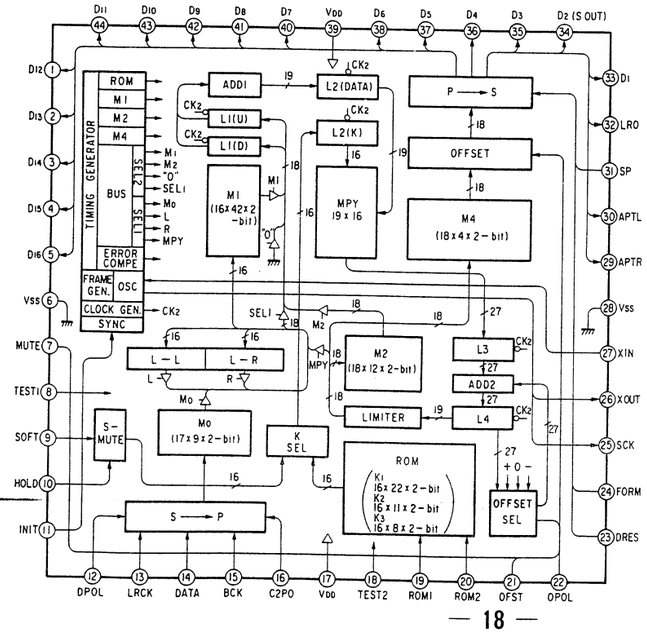
IC204
CXA1182S



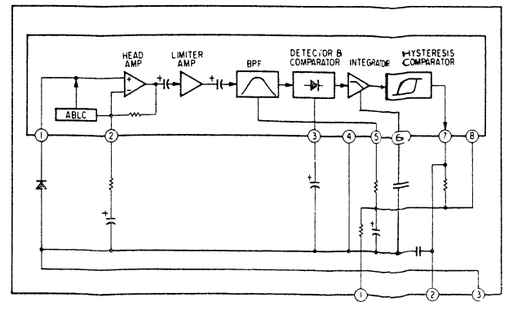
IC521
TDA1541-N5



IC520
CXD1088Q



IC802
BX-1387



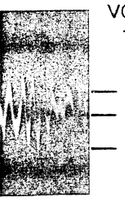
djustment method.

cannot be performed, of the controls before t. If the positions after the ly a little different, return inal position.

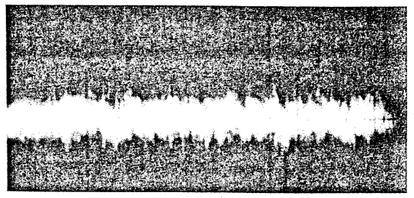
illoscope
range)

this adjustment cannot be
against the 2 axis device.)
back the 6th selection.
n board TP(FEO).
waveform is as shown in
in adjustment)

el changes more than on

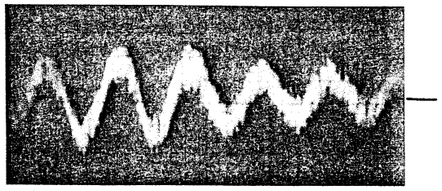


5. Connect oscilloscope to main board TP(TEO).
6. Adjust RV102 so that the waveform is as shown in the figure below. (tracking gain adjustment)

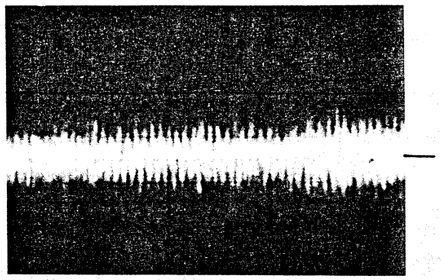


● Incorrect Examples (fundamental wave appears)

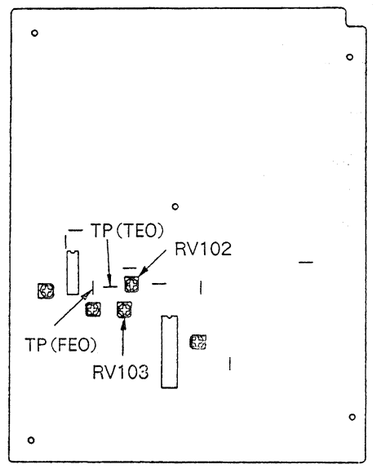
low tracking gain



high tracking gain
(higher fundamental wave than for low gain)

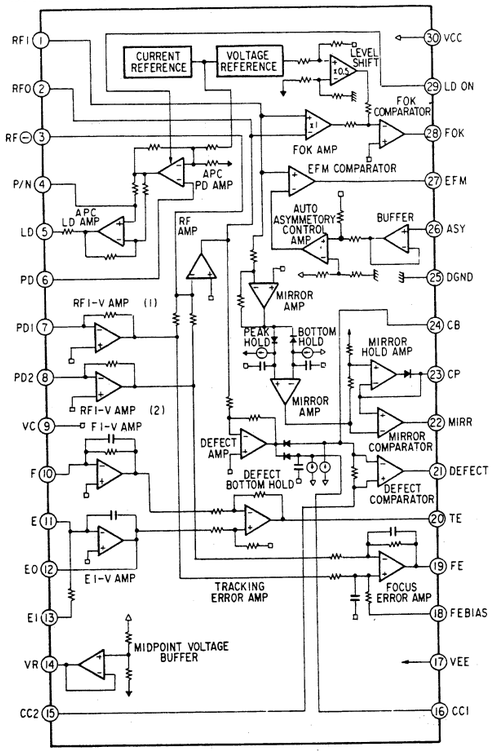


Adjustment Location : main board

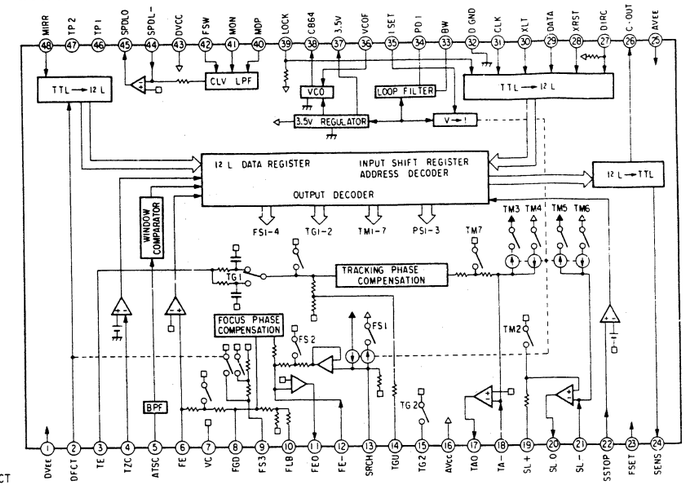


● IC BLOCK DIAGRAMS

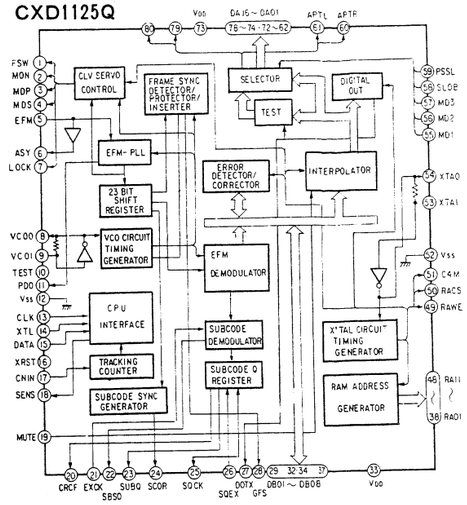
IC101
CXA1081S



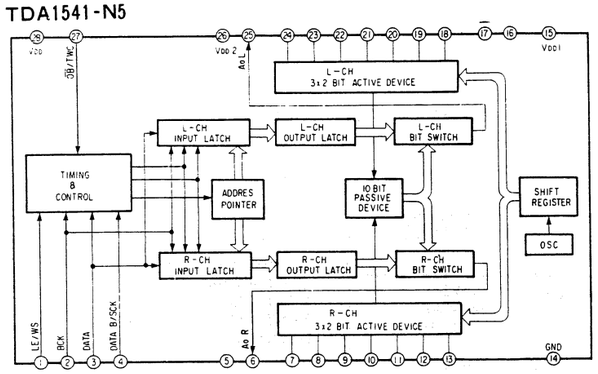
IC204
CXA1182S



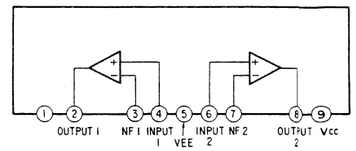
IC302
CXD1125Q



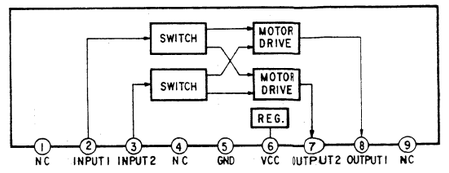
IC521
TDA1541-N5



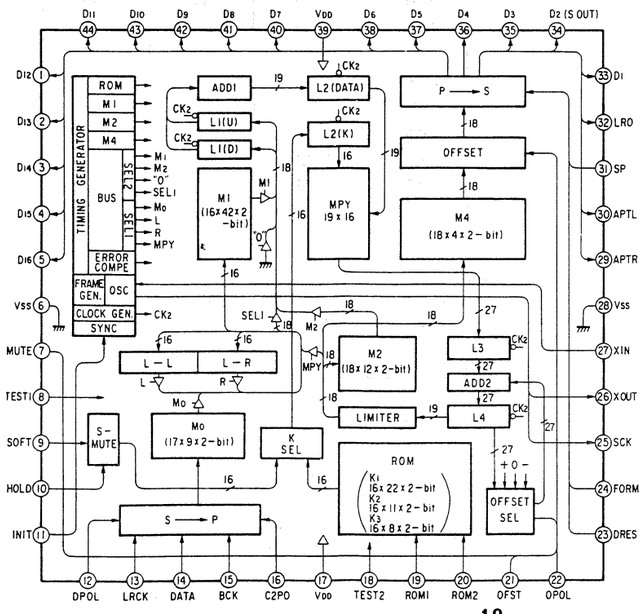
IC201
TA7256P



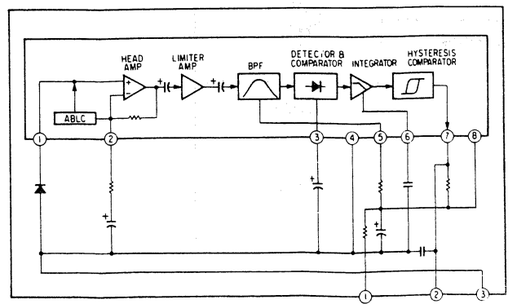
IC390
BA6208



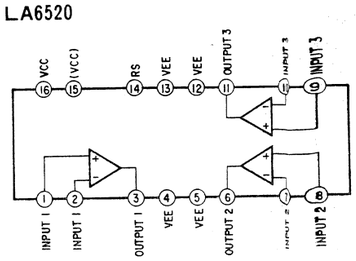
IC520
CXD1088Q



IC802
BX-1387

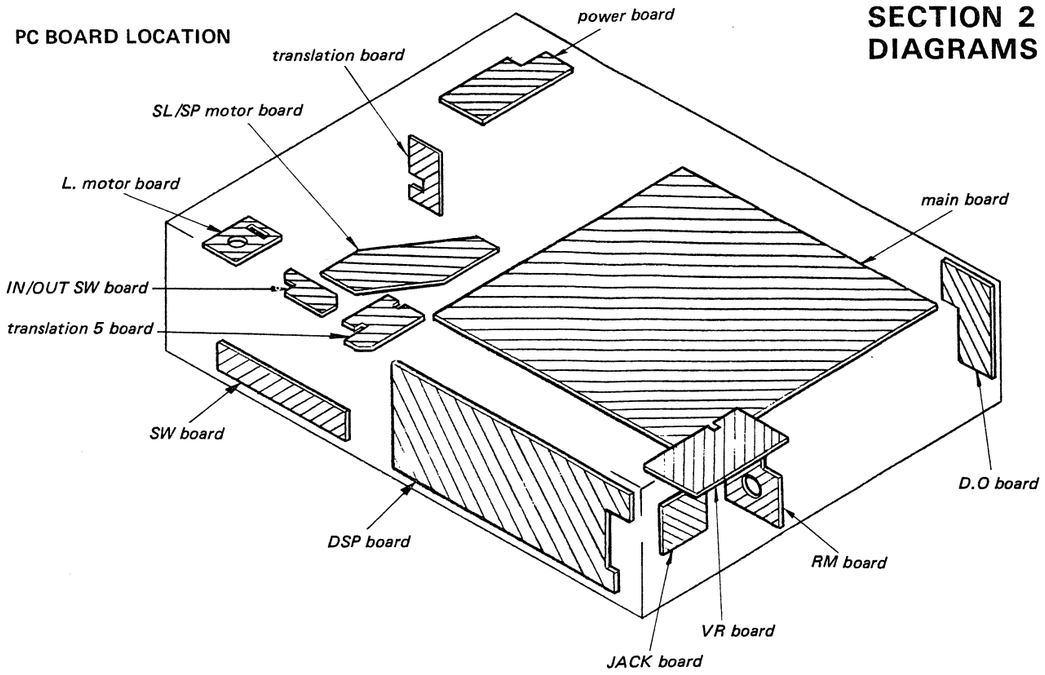


IC202
LA6520



SECTION 2 DIAGRAMS

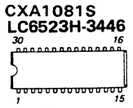
PC BOARD LOCATION



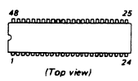
Semiconductor Lead Layouts

BA6208

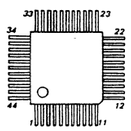
CXA1081S
LC6523H-3446



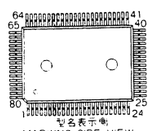
CXA1182S



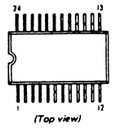
CXD1088Q



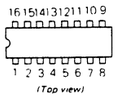
CXD1125Q
CXP5058H-060Q



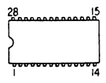
CXK5816M-10L



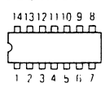
LA6520



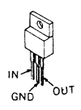
LC9600R-183
TDA1541-N5



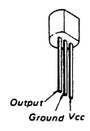
MC74HC02N
TC74HCOOP



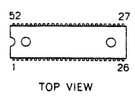
M5F7805
M5F7905
M5F7915



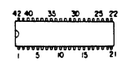
M5278L56



M50740A-424SP



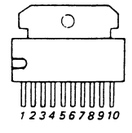
MSM6408-26SS



NJM4556S

NJM5532D-D

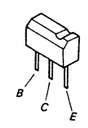
TA7256P



2SA1348
2SC3399
2SC3402

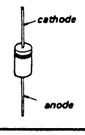
2SB734

2SC2021

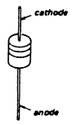


2SC3622A-K

1SS132



GP08DPKG23
HZS4.3NB3
HZS33-2L
HZS9B2L



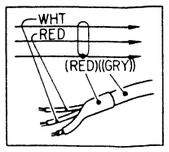
CDP-307ESD/950

SEMICONDUCTOR LOCATION

Ref.No.	Location	Ref.No.	Location
IC101	G-23	Q500	C-20
IC201	J-23	Q501	B-19
IC202	I-23	Q502	B-19
IC203	J-22	Q520	E-20
IC204	I-21	Q521	D-20
IC301	J-19	Q522	E-20
IC302	G-19	Q801	J-7
IC303	G-20	Q940	B-22
IC351	J-17		
IC352	H-17		
		D101	H-24
IC380	E-17	D201	K-22
IC390	F-27	D901	D-23
IC400	C-18	D902	D-23
IC450	F-27	D903	E-22
IC500	C-19		
		D904	F-23
IC520	F-18	D905	E-23
IC521	E-19	D906	E-23
IC801	J-8	D907	E-21
IC802	G-3	D908	D-23
IC900	D-22		
		D909	D-23
IC910	C-22	D910	C-23
IC920	B-22	D911	C-23
IC930	F-23	D912	F-21
IC940	F-21	D920	C-23
		D921	C-23
Q101	H-24	D940	B-23
Q202	K-22	D941	B-23
Q203	K-22	D943	B-23
Q204	K-22	D944	B-22
Q205	J-20	D945	E-24
Q206	J-20		
Q301	I-19		
Q400	D-17		
Q401	B-18		
Q402	B-18		

Note:

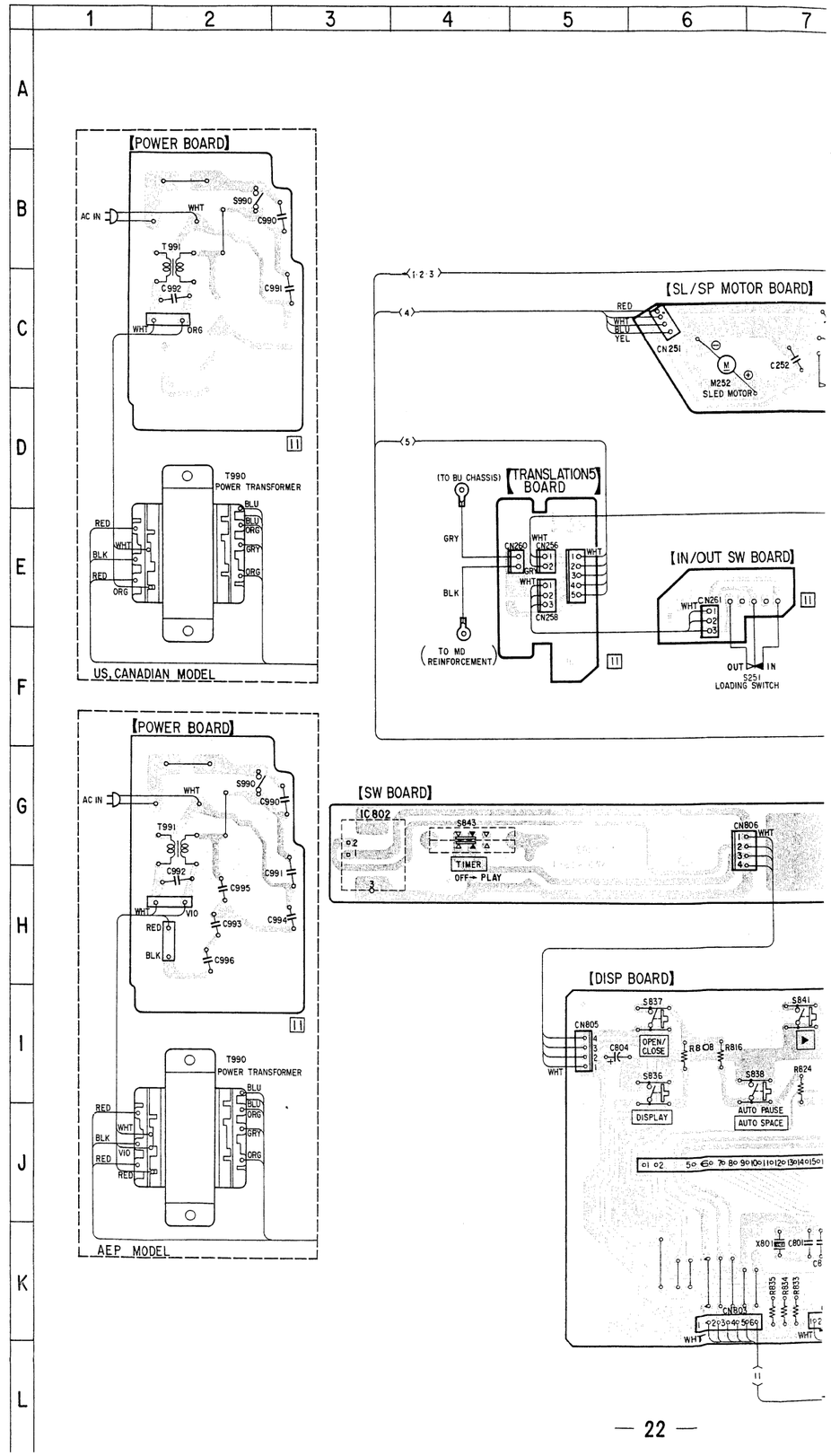
- Color code or sleeving over the end of the jacket.



- ○—— : parts extracted from the component side.
- ▩ : parts mounted on the conductor side.
- ○—○ : Jumper wire connected to the ground pattern on the component side.

PRINTED WIRING BOARDS

● See page 18 for IC BLOCK DIAGRAMS



OCK DIAGRAMS

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

【SL/SP MOTOR BOARD】

RED WHT BLU YEL — CN251 — C253 — M253 SPINDLE MOTOR — C252 — M252 SLED MOTOR — S252 LIMIT IN SWITCH — 11

KSS150A
OPTICAL PICK-UP BLOCK

(TRANSLATION BOARD) — (2,3) — (1) — FLEXIBLE BOARD

【TRANSLATION5 BOARD】 — CN260 — CN256 — CN258 — 11

【IN/OUT SW BOARD】 — CN261 — OUT — IN — S251 LOADING SWITCH — 11

【L.MOTOR BOARD】 — CN251 — C251 — M251 LOADING MOTOR — 11

【POWER BOARD】

AC IN — WHT — T991 — BRN — BLU — POWER S990 — C990 — 11

S991 VOLTAGE SELECTOR — TOP — ORG WHT VIO BLU GRY YEL

T990 POWER TRANSFORMER — BRN RED BLK WHT YEL RED ORG — BLU BLU GRY ORG VIO GRY BLU ORG

E MODEL

CDP-950
(CANADIAN, AEP MODEL)
CDP-307ESD
(US, E MODEL)

【MAIN BOARD】

J401 LINE OUT — L FIXED R — TO CHASSIS — L R VARIABLE

CN380 — YEL WHT PNK

IC380 IC400 IC500 IC521 IC520 IC940 IC302 IC303 IC352 IC351 IC301 IC204 IC2024 IC203 IC201 IC101 IC930 IC910 IC920 IC900

Q400 Q401 Q402 Q502 Q501 Q500 Q521 Q520 Q522 Q301 Q206 Q205

D907 D912 D904 D944 D940 D943 D941 D921 D920 D911 D910 D908 D909 D901 D906 D905 D902 D903

CN402 — BLU WHT RED — CNP401 — WHT RED

(CF1) (CF2) (CFL) (RCK) (PCK) (AG) (TE) (TE1) (FE) (FE1) (TES) (EFM) (GFS) (MDP) (MUT) (ADJ) (SPD) (RST) (DG) (AST) (FEO) (RFG)

CDP-307ESD (US MODEL)

【DISP BOARD】

CN805 — WHT

S837 OPEN/CLOSE — S841 — S842 — S832 — S833 — AMS — S834 — S821

S836 DISPLAY — S838 AUTO PAUSE AUTO SPACE — S824 — S839 REPEAT — S840 INDEX — S831 INDEX — S835

S825 PROGRAM — S824 SHUFFLE — S823 CONTINUE/SINGLE — S822 ERASE

PLAY MODE

S826 ▷20 — S827 CHECK — S828 CLEAR — S829 FILE

S816 16 — S817 17 — S818 18 — S819 19 — S820 20

S811 11 — S812 12 — S813 13 — S814 14 — S815 15

S806 6 F — S807 7 — S808 8 — S809 9 — S810 10

S801 1 A — S802 2 B — S803 3 C — S804 4 D — S805 5 E

S830 CUSTOM INDEX MODE

FLD 801 FLUORESCENT INDICATOR TUBE

Q801 — ■IC801 — X801 — C801 C802 C803 C805 — CN803 CN802 CN801 — WHT

11 12 13 14

(1~5) (6) (11~14)

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

【MAIN BOARD】

【POWER BOARD】

(TRANSLATION BOARD)

CDP-950
(CANADIAN, AEP MODEL)
CDP-307ESD
(US, E MODEL)

E MODEL

CDP-307ESD (US MODEL)

【D-0 BOARD】

CDP-950 (CANADIAN, AEP MODEL)
CDP-307ESD (US, E MODEL)

【VR BOARD】

【RM BOARD】

【JACK BOARD】

SECTION 3
EXPLODED VIEWS AND PARTS LIST

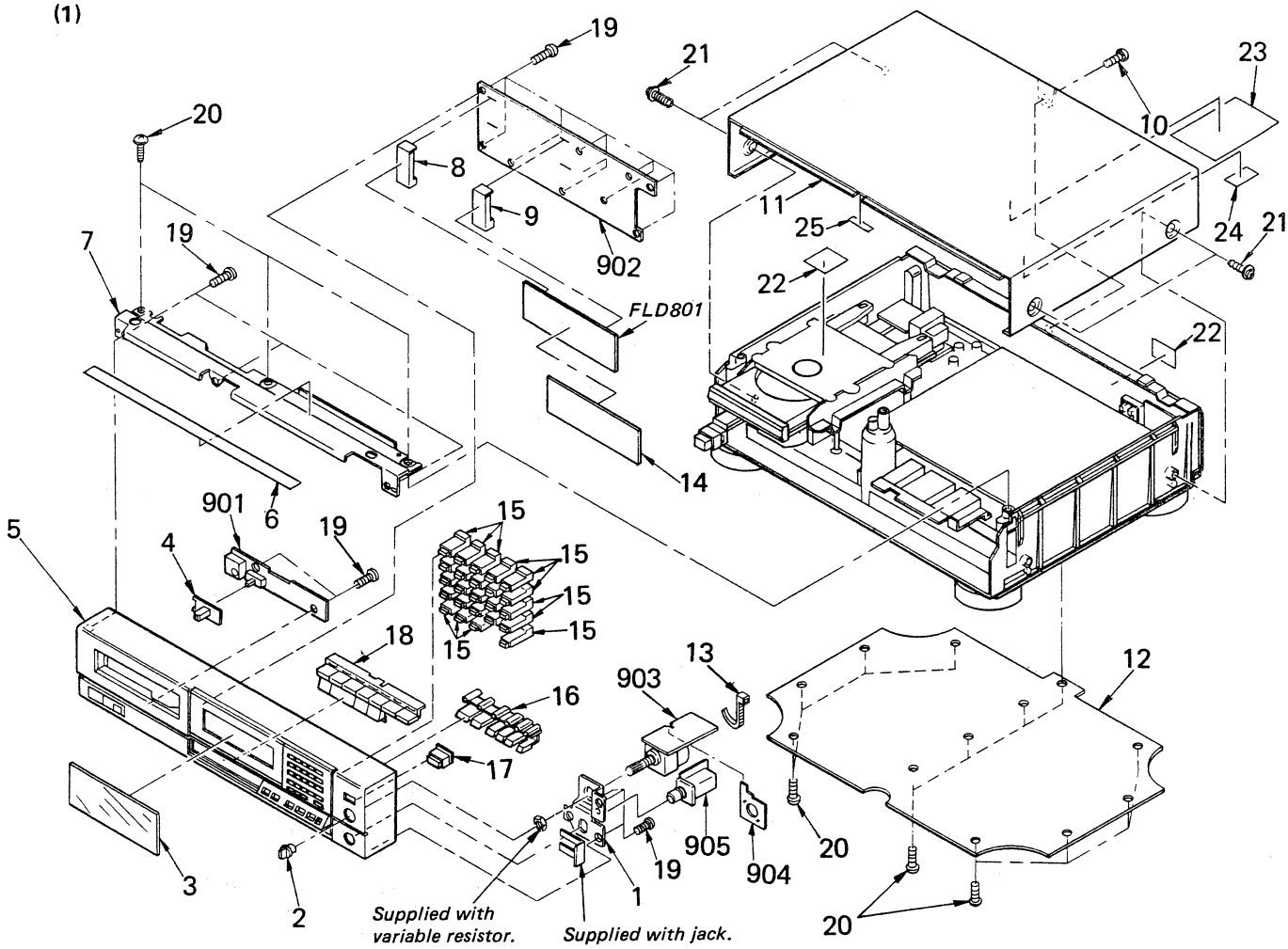
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

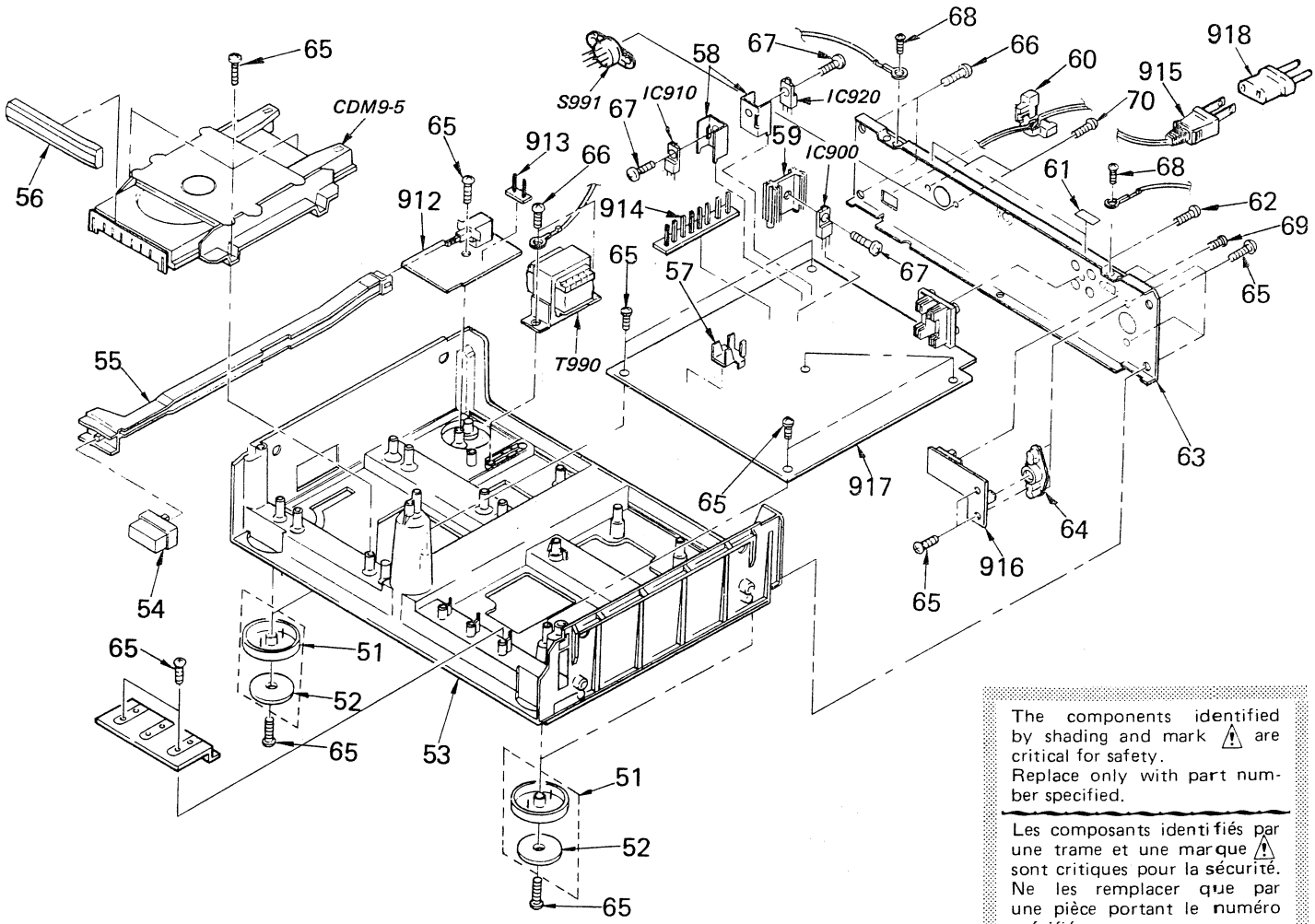
(1)



No.	Part No.	Description	Remarks
1	*4-922-520-01	BRACKET, VR	
2	4-922-531-01	KNOB (A TYPE), VOL	
3	4-922-918-11	(950,307ESD:E)...PLATE, INDICATION	
	4-922-918-21	(307ESD:US).....PLATE, INDICATION	
4	4-922-518-01	KNOB (TIMER)	
5	X-4922-503-1	(950:US).....PANEL ASSY, FRONT	
	X-4922-504-1	(307ESD).....PANEL ASSY, FRONT	
	X-4922-507-1	(950:Canadian,AEP)...PANEL ASSY, FRONT	
6	*4-922-933-01	SPACER	
7	*4-922-924-01	BRACKET, PANEL	
8	*4-922-524-01	HOLDER (LEFT)	
9	*4-922-523-01	HOLDER (RIGHT)	
10	7-685-646-79	SCREW, TAPPING	
11	4-912-939-01	CASE	
12	*4-922-927-11	BOARD, BOTTOM	
13	3-701-748-00	CLAMP	

No.	Part No.	Description	Remarks
14	4-922-519-01	FILTER	
15	4-922-920-01	BUTTON (M.C)	
16	4-922-923-01	BUTTON (AMS)	
17	4-922-522-01	BUTTON (C.I)	
18	X-4922-908-1	BUTTON ASSY	
19	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
20	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
21	4-886-821-01	SCREW M3 CASE	
22	*4-885-838-00	(950:AEP,307ESD:E)...LABEL, CLASS 1	
23	*4-917-634-01	DAMPER (C)	
24	3-831-441-XX	CUSHION (T)	
25	*4-922-937-01	CUSHION	
901	*1-624-054-11	PC BOARD, SW	
902	*1-624-051-11	PC BOARD, DISP	
903	*1-624-052-11	PC BOARD, VR	
904	*1-624-055-11	PC BOARD, RM	
905	*1-624-053-11	PC BOARD, JACK	
FLD801	1-519-428-11	INDICATOR TUBE, FLUORESCENT	

(2)



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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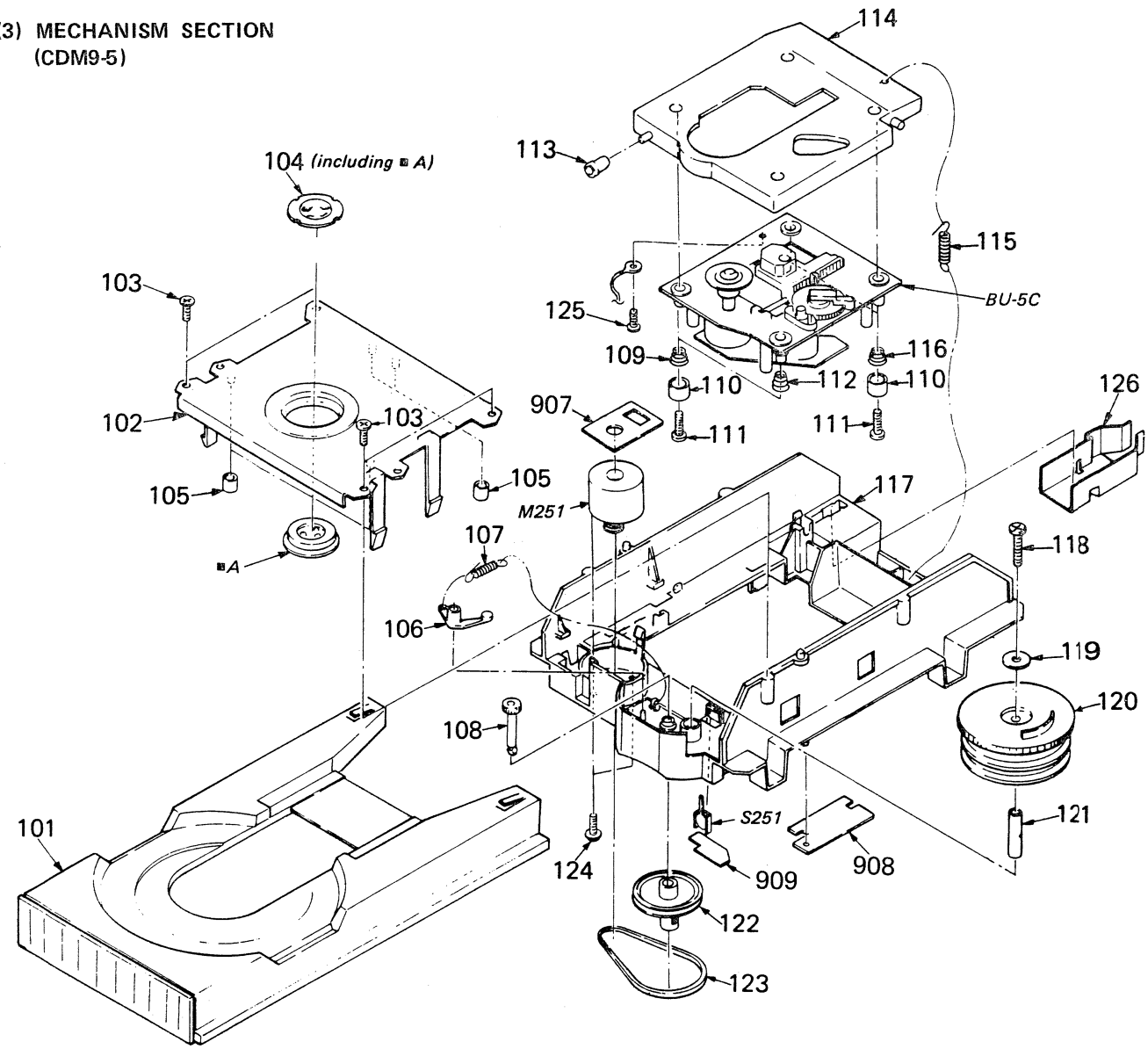
Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks
51	X-4922-508-1	(950:Canadian,AEP,307ESD)...FOOT ASSY	52
52	4-922-915-01	(950:Canadian,AEP,307ESD)...FOOT (FELT)	
	4-922-942-01	(950:US).....FOOT (FELT)	
53	*4-922-928-01	CHASSIS	
54	4-917-460-01	KNOB, POWER	
55	*4-922-530-01	LEVER, POWER SWITCH	
56	4-922-410-41	(950:US).....PANEL, LOADING	
	4-922-919-21	(950:Canadian,AEP,307ESD)..PANEL, LOADING	
57	*4-922-525-01	HEAT SINK	
58	*3-309-144-01	HEAT SINK	
59	*4-908-502-01	HEAT SINK	
60	*3-703-244-00	(950,307ESD:US)...BUSHING (2104), CORD	
	*3-703-571-11	(307ESD:E).....BUSHING (S)(4516), CORD	
61	3-568-749-00	CUSHION, ECM	
62	4-909-982-01	SCREW, TAPPING	
63	*4-922-502-11	(307ESD:US).....PANEL, BACK	
	*4-922-503-21	(950:AEP).....PANEL, BACK	
	*4-922-502-31	(307ESD:E).....PANEL, BACK	
	*4-922-503-41	(950:Canadian)...PANEL, BACK	
	*4-922-503-71	(950:US).....PANEL, BACK	
64	*4-913-152-01	(950:Canadian,AEP,307ESD)..ESCUTCHEON, D/O	
65	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
66	7-685-660-11	SCREW +BVTP 4X10 TYPE2 N-S	
67	7-682-147-15	SCREW, TR	

No.	Part No.	Description	Remarks
68	7-682-547-09	SCREW +BVTT 3X6 (S)	
69	7-621-773-86	SCREW +P 2.6X4	
70	7-682-546-09	(307ESD:E)...CREW +B 3X5	
912	*1-624-049-11	PC BOARD, POWER	
913	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P	
914	*1-535-121-00	TERMINAL	
915	⚠1-555-795-00	(950:AEP).....CORD, POWER	
	⚠1-556-091-00	(307ESD:E).....CORD, POWER	
	⚠1-557-577-11	(950:US,Canadian,307ESD:US)...CORD, POWER	
916	*1-624-050-11	(950:Canadian,AEP,307ESD)...PC BOARD, D.O	
917	*A-4651-157-A	(950:AEP,307ESD:E)...MOUNTED PCB , MAIN	
	*A-4651-180-A	(950:US).....MOUNTED PCB , MAIN	
	*A-4651-181-A	(950:Canadian).....MOUNTED PCB , MAIN	
	*A-4651-182-A	(307ESD:US).....MOUNTED PCB , MAIN	
918	⚠1-526-565-00	(307ESD:E)...AC PLUG ADAPTOR	
IC900	8-759-604-29	IC M5F7805	
IC910	8-759-604-47	IC M5F7905	
IC920	8-759-604-52	IC M5F7915	
S991	⚠1-526-576-11	(307ESD:E)...SELECTOR, POWER VOLTAGE (VOLTAGE SELECTOR)	
T990	⚠1-449-029-11	(950:US,Canadian,307ESD:US) ...TRANSFORMER, POWER	
T990	⚠1-449-030-11	(950:AEP).....TRANSFORMER, POWER	
T990	⚠1-449-031-11	(307ESD:E).....TRANSFORMER, POWER	

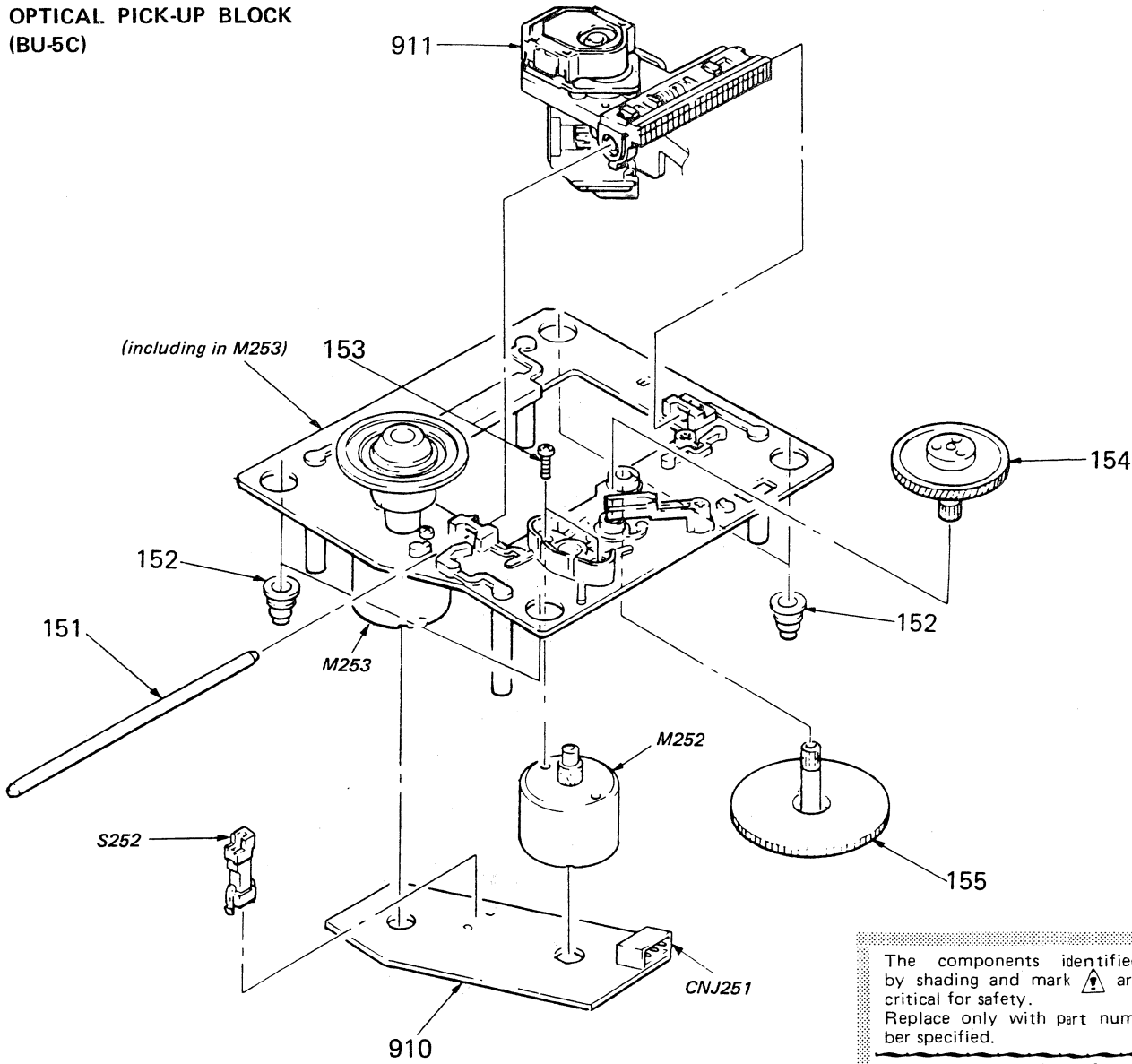
(3) MECHANISM SECTION (CDM9-5)



No.	Part No.	Description	Remarks
101	*4-922-515-01	TABLE, DISK	
102	*4-922-510-01	REINFORCEMENT	
103	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
104	A-4665-012-C	MAGNET ASSY	
105	*3-576-990-01	CUSHION	
106	4-917-519-01	LEVER, SET	
107	4-917-514-01	SPRING, TENSION	
108	4-922-508-01	GEAR (DRIVING)	
109	4-917-541-01	SPRING (B)	
110	4-917-508-01	HOLDER, SP	
111	7-685-535-19	SCREW +BTP 2.6X10 TYPE2 N-S	
112	4-918-669-01	SPRING (W)	
113	4-917-515-01	ROLLER	
114	*4-922-514-01	BRACKET (BU-5)	
115	4-917-526-01	SPRING, TENSION	

No.	Part No.	Description	Remarks
116	4-917-507-01	SPRING (H)	
117	*4-922-516-01	CHASSIS (MD)	
118	7-685-552-19	SCREW +BTP 3X25 TYPE2 N-S	
119	0-056-028-00	WASHER, PLAIN, 14 DIA.	
120	4-922-511-01	GEAR (LOADING)	
121	*4-917-523-01	COLLAR, CAM	
122	4-922-512-01	PULLEY	
123	4-917-522-01	BELT	
124	7-621-759-40	+PSW, 2.6X6	
125	7-621-770-67	SCREW +BVTT 2.6X6 (S)	
126	4-923-541-11	SPRING	
907	*1-624-324-11	PC BOARD, L.MOTOR	
908	*1-624-325-11	PC BOARD, TRANSLATION 5	
909	*1-624-323-11	PC BOARD, IN/OUT SW	
M251	A-4608-346-A	MOTOR ASSY, L	
S251	1-571-300-11	SWITCH, ROTARY (LOADING IN/OUT)	

(4) OPTICAL PICK-UP BLOCK (BU-5C)



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Replace only with part number specified.

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Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks
151	4-917-565-01	SHAFT, SLED	
152	4-917-562-01	INSULATOR	
153	7-621-255-15	SCREW +P 2X3	
154	4-917-567-01	GEAR (M)	
155	4-917-564-01	GEAR (P), FLATNESS	

No.	Part No.	Description	Remarks
910	*1-624-322-11	PC BOARD, SL/SP MOTOR	
911	⚠8-848-062-01	DEVICE,OPTICS (KSS-150A)	
CNJ251	*1-564-720-21	PIN, CONNECTOR (SMALL TYPE) 4P	
M252	X-4917-504-1	ASSY, MOTOR (SLED)	
M253	X-4917-523-1	ASSY, MOTOR (SPINDLE)	
S252	1-571-274-11	SWITCH, LEAF (LIMIT IN)	

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

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Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
901	*1-624-054-11	PC BOARD, SW
902	*1-624-051-11	PC BOARD, DISP
903	*1-624-052-11	PC BOARD, VR
904	*1-624-055-11	PC BOARD, RM
905	*1-624-053-11	PC BOARD, JACK
907	*1-624-324-11	PC BOARD, L.MOTOR
908	*1-624-325-11	PC BOARD, TRANSLATION 5
909	*1-624-323-11	PC BOARD, IN/OUT SW
910	*1-624-322-11	PC BOARD, SL/SP MOTOR
911	⚠8-848-062-01	DEVICE, OPTICS (KSS-150A)
912	*1-624-049-11	PC BOARD, POWER
913	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P
914	*1-535-121-00	TERMINAL
915	⚠1-555-795-00	(950:AEP).....CORD, POWER
	⚠1-556-091-00	(307ESD:E).....CORD, POWER
	⚠1-557-577-11	(950:US,Canadian,307ESD:US) ...CORD, POWER
916	*1-624-050-11	(950:Canadian,AEP,307ESD) ...PC BOARD, D.O
917	*A-4651-157-A	(950:AEP,307ESD:E)...MOUNTED PCB, MAIN
	*A-4651-180-A	(950:US).....MOUNTED PCB, MAIN
	*A-4651-181-A	(950:Canadian).....MOUNTED PCB, MAIN
	*A-4651-182-A	(307ESD:US).....MOUNTED PCB, MAIN
918	⚠1-526-565-00	(307ESD:E)...AC PLUG ADAPTOR

C101	1-162-294-31	CERAMIC	0.001MF	10%	50V
C102	1-124-443-00	ELECT	100MF	20%	6.3V
C103	1-162-199-31	CERAMIC	10PF	5%	50V
C104	1-162-199-31	CERAMIC	10PF	5%	50V
C105	1-162-198-31	CERAMIC	8.2PF	10%	50V
C106	1-124-908-11	ELECT	22MF	20%	25V
C107	1-130-477-00	MYLAR	0.0033MF	5%	50V
C108	1-136-159-00	FILM	0.033MF	5%	50V
C109	1-162-851-11	CERAMIC	0.1MF	20%	16V
C110	1-124-908-11	ELECT	22MF	20%	25V
C111	1-136-159-00	FILM	0.033MF	5%	50V
C112	1-136-153-00	FILM	0.01MF	5%	50V
C113	1-124-908-11	ELECT	22MF	20%	25V
C114	1-162-851-11	CERAMIC	0.1MF	20%	16V
C115	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C116	1-161-377-00	CERAMIC	0.0047MF	30%	16V
C117	1-124-902-00	ELECT	0.47MF	20%	50V
C200	1-161-379-00	CERAMIC	0.01MF	20%	16V
C201	1-124-478-11	ELECT	100MF	20%	25V
C202	1-124-478-11	ELECT	100MF	20%	25V
C203	1-162-851-11	CERAMIC	0.1MF	20%	16V
C204	1-162-851-11	CERAMIC	0.1MF	20%	16V

C205	1-162-294-31	CERAMIC	0.001MF	10%	50V
C206	1-162-294-31	CERAMIC	0.001MF	10%	50V
C207	1-162-851-11	CERAMIC	0.1MF	20%	16V
C208	1-136-169-00	FILM	0.22MF	5%	50V
C210	1-162-851-11	CERAMIC	0.1MF	20%	16V
C211	1-162-851-11	CERAMIC	0.1MF	20%	16V
C212	1-124-478-11	ELECT	100MF	20%	25V
C213	1-124-478-11	ELECT	100MF	20%	25V
C214	1-124-908-11	(307ESD:US)...ELECT	22MF	20%	25V
C215	1-123-875-11	ELECT	10MF	20%	50V
C217	1-136-165-00	FILM	0.1MF	5%	50V
C218	1-123-382-00	ELECT	3.3MF	20%	50V
C219	1-136-159-00	FILM	0.033MF	5%	50V
C220	1-136-165-00	FILM	0.1MF	5%	50V
C221	1-130-479-00	MYLAR	0.0047MF	5%	50V
C222	1-124-499-11	ELECT	1MF	20%	50V
C223	1-124-927-11	ELECT	4.7MF	20%	50V
C224	1-124-908-11	ELECT	22MF	20%	25V
C225	1-162-294-31	CERAMIC	0.001MF	10%	50V
C226	1-162-282-31	CERAMIC	100PF	10%	50V
C227	1-124-908-11	ELECT	22MF	20%	25V
C228	1-162-851-11	CERAMIC	0.1MF	20%	16V
C229	1-162-851-11	CERAMIC	0.1MF	20%	16V
C231	1-124-908-11	ELECT	22MF	20%	25V
C251	1-136-157-00	FILM	0.022MF	5%	50V
C252	1-106-351-00	MYLAR	0.0022MF	5%	50V
C253	1-106-351-00	MYLAR	0.0022MF	5%	50V
C301	1-162-851-11	CERAMIC	0.1MF	20%	16V
C302	1-124-908-11	ELECT	22MF	20%	25V
C303	1-161-379-00	CERAMIC	0.01MF	20%	16V
C304	1-124-902-00	ELECT	0.47MF	20%	50V
C305	1-136-159-00	FILM	0.033MF	5%	50V
C306	1-124-443-00	ELECT	100MF	20%	6.3V
C307	1-136-173-00	FILM	0.47MF	5%	50V
C308	1-162-851-11	CERAMIC	0.1MF	20%	16V
C351	1-161-379-00	CERAMIC	0.01MF	20%	16V
C352	1-161-379-00	CERAMIC	0.01MF	20%	16V
C353	1-124-908-11	ELECT	22MF	20%	25V
C354	1-124-908-11	ELECT	22MF	20%	25V
C380	1-124-908-11	(950:Canadian,AEP,307ESD) ...ELECT	22MF	20%	25V
C381	1-130-483-00	(950:Canadian,AEP,307ESD) ...MYLAR	0.01MF	5%	50V
C382	1-162-219-31	(950:Canadian,AEP,307ESD) ...CERAMIC	68PF	5%	50V
C383	1-162-851-11	(950:Canadian,AEP,307ESD) ...CERAMIC	0.1MF	20%	16V

Ref.No.	Part No.	Description			
C384	1-162-851-11	(950:Canadian,AEP,307ESD) ...CERAMIC	0.1MF	20%	16V
C386	1-162-851-11	CERAMIC	0.1MF	20%	16V
C387	1-162-282-31	CERAMIC	100PF	10%	50V
C390	1-124-443-00	ELECT	100MF	20%	10V
C391	1-124-443-00	ELECT	100MF	20%	10V
C400	1-162-851-11	CERAMIC	0.1MF	20%	16V
C401	1-162-851-11	CERAMIC	0.1MF	20%	16V
C402	1-162-851-11	CERAMIC	0.1MF	20%	16V
C403	1-162-851-11	CERAMIC	0.1MF	20%	16V
C404	1-162-851-11	CERAMIC	0.1MF	20%	16V
C405	1-162-851-11	CERAMIC	0.1MF	20%	16V
C406	1-162-851-11	CERAMIC	0.1MF	20%	16V
C407	1-130-473-00	MYLAR	0.0015MF	5%	50V
C408	1-130-484-00	MYLAR	0.012MF	5%	50V
C409	1-130-480-00	MYLAR	0.0056MF	5%	50V
C410	1-130-474-00	MYLAR	0.0018MF	5%	50V
C411	1-130-471-00	MYLAR	0.001MF	5%	50V
C412	1-123-332-00	ELECT	47MF	20%	25V
C414	1-124-559-51	ELECT	1000MF	20%	10V
C450	1-124-472-11	ELECT	470MF	20%	10V
C451	1-124-472-11	ELECT	470MF	20%	10V
C452	1-162-290-31	CERAMIC	470PF	10%	50V
C500	1-162-851-11	CERAMIC	0.1MF	20%	16V
C501	1-162-851-11	CERAMIC	0.1MF	20%	16V
C502	1-162-851-11	CERAMIC	0.1MF	20%	16V
C503	1-162-851-11	CERAMIC	0.1MF	20%	16V
C504	1-162-851-11	CERAMIC	0.1MF	20%	16V
C505	1-162-851-11	CERAMIC	0.1MF	20%	16V
C506	1-162-851-11	CERAMIC	0.1MF	20%	16V
C507	1-130-473-00	MYLAR	0.0015MF	5%	50V
C508	1-130-484-00	MYLAR	0.012MF	5%	50V
C509	1-130-480-00	MYLAR	0.0056MF	5%	50V
C510	1-130-474-00	MYLAR	0.0018MF	5%	50V
C511	1-130-471-00	MYLAR	0.001MF	5%	50V
C512	1-123-332-00	ELECT	47MF	20%	25V
C514	1-124-559-51	ELECT	1000MF	20%	10V
C520	1-162-290-31	CERAMIC	470PF	10%	50V
C521	1-126-103-11	ELECT	470MF	20%	16V
C522	1-126-103-11	ELECT	470MF	20%	16V
C523	1-124-478-11	ELECT	100MF	20%	25V
C524	1-124-478-11	ELECT	100MF	20%	25V
C525	1-162-203-31	CERAMIC	15PF	5%	50V
C526	1-162-205-31	CERAMIC	18PF	5%	50V
C527	1-162-291-31	CERAMIC	560PF	10%	50V
C528	1-162-291-31	CERAMIC	560PF	10%	50V
C529	1-124-908-11	ELECT	22MF	20%	25V
C530	1-161-379-00	CERAMIC	0.01MF	20%	16V
C552	1-162-290-31	CERAMIC	470PF	10%	50V
C801	1-162-207-31	CERAMIC	22PF	5%	50V
C802	1-162-207-31	CERAMIC	22PF	5%	50V
C803	1-161-379-00	CERAMIC	0.01MF	20%	16V
C804	1-123-661-00	ELECT	100MF	20%	6.3V
C805	1-161-379-00	CERAMIC	0.01MF	20%	16V
C900	1-124-898-11	ELECT	4700MF	20%	16V
C901	1-124-473-11	ELECT	1000MF	20%	10V
C902	1-123-875-11	ELECT	10MF	20%	50V
C903	1-124-925-11	ELECT	2.2MF	20%	50V
C904	1-126-244-51	ELECT	47000MF		5.5V
C905	1-126-103-11	ELECT	470MF	20%	16V
C906	1-123-875-11	ELECT	10MF	20%	50V
C910	1-124-898-11	ELECT	4700MF	20%	16V
C911	1-124-472-11	ELECT	470MF	20%	10V

Ref.No.	Part No.	Description			
C920	1-126-105-11	ELECT	1000MF	20%	35V
C921	1-124-360-00	ELECT	1000MF	20%	16V
C940	1-124-122-11	ELECT	100MF	20%	50V
C941	1-124-122-11	ELECT	100MF	20%	50V
C942	1-124-122-11	ELECT	100MF	20%	50V
C944	1-124-122-11	ELECT	100MF	20%	50V
C990	⚠1-161-744-00	CERAMIC	0.01MF		400V
C991	⚠1-161-744-00	(950:US,Canadian,307ESD:US) ...CERAMIC	0.01MF		400V
C991	⚠1-162-599-12	(950:AEP)...CERAMIC	0.0047MF		400V
C992	⚠1-161-744-00	(950:US,Canadian,307ESD:US) ...CERAMIC	0.01MF		400V
C992	⚠1-162-599-12	(950:AEP)...CERAMIC	0.0047MF		400V
C993	⚠1-161-742-00	(950:AEP)...0.0022MF		20%	400V
C994	⚠1-161-742-00	(950:AEP)...0.0022MF		20%	400V
C995	⚠1-161-742-00	(950:AEP)...0.0022MF		20%	400V
C996	⚠1-161-742-00	(950:AEP)...0.0022MF		20%	400V
CN256	*1-564-336-51	PIN, CONNECTOR 2P			
CN258	*1-564-337-51	PIN, CONNECTOR 3P			
CN260	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
CNJ251	1-564-720-21	PIN, CONNECTOR (SMALL TYPE) 2P			
CNP101	*1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P			
CNP102	*1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CNP201	*1-564-339-61	PIN, CONNECTOR 5P			
CNP203	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CNP204	*1-564-706-41	PIN, CONNECTOR (SMALL TYPE) 4P			
CNP302	*1-564-340-61	PIN, CONNECTOR 6P			
CNP303	*1-564-666-11	PIN, CONNECTOR 10P			
CNP304	*1-564-338-71	PIN, CONNECTOR 4P			
CNP380	*1-564-706-11	(950:Canadian,AEP,307ESD) ...PIN, CONNECTOR (SMALL TYPE) 4P			
CNP401	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP402	*1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CNP901	*1-564-340-51	PIN, CONNECTOR 6P			
CP450	1-233-128-11	COMPOSITION CIRCUIT BLOCK			
CP550	1-233-128-11	COMPOSITION CIRCUIT BLOCK			
D101	8-719-940-76	DIODE 1SS132			
D201	8-719-940-76	(307ESD:US)...DIODE 1SS132			
D901	8-719-940-76	DIODE 1SS132			
D902	8-719-940-76	DIODE 1SS132			
D903	8-719-940-76	DIODE 1SS132			
D904	8-719-940-76	DIODE 1SS132			
D905	8-719-940-76	DIODE 1SS132			
D906	8-719-940-76	DIODE 1SS132			
D907	8-719-928-82	DIODE HZS4.3NB3			
D908	⚠8-719-936-83	DIODE GP08DPKG23			
D909	⚠8-719-936-83	DIODE GP08DPKG23			
D910	⚠8-719-936-83	DIODE GP08DPKG23			
D911	⚠8-719-936-83	DIODE GP08DPKG23			
D920	⚠8-719-936-83	DIODE GP08DPKG23			
D921	⚠8-719-936-83	DIODE GP08DPKG23			

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Ref.No.	Part No.	Description
D940 ⚠	8-719-936-83	DIODE GP08DPKG23
D941 ⚠	8-719-936-83	DIODE GP08DPKG23
D943 ⚠	8-719-936-83	DIODE GP08DPKG23
D944	8-719-934-26	DIODE HZS33-2L
D945	8-719-933-57	DIODE HZS9B2L
FLD801	1-519-428-11	INDICATOR TUBE, FLUORESCENT
IC101	8-752-031-80	IC CXA1081S
IC201	8-759-202-01	IC TA7256P
IC202	8-759-805-18	IC LA6520
IC203	8-759-820-04	(307ESD:US)...IC LC6523H-3446
IC204	8-752-032-33	IC CXA1182S
IC301	8-759-971-40	IC MSM6408-26SS
IC302	8-752-322-04	IC CXD1125Q
IC303	8-752-320-44	IC CXK5816M-10L
IC351	8-759-630-16	IC M50740A-424SP
IC352	8-759-820-64	IC LC9600R-183
IC380	8-759-202-11	IC TC74HC00P
IC390	8-759-962-08	IC BA6208
IC400	8-759-701-21	IC NJM5532D-D
IC450	8-759-700-74	IC NJM4556S
IC500	8-759-701-21	IC NJM5532D-D
IC520	8-759-939-35	IC CXD1088Q
IC521	8-759-939-94	IC TDA1541-N5
IC801	8-752-803-69	IC CXP5058H-068Q
IC802	8-741-138-70	IC BX-1387
IC900	8-759-604-29	IC M5F7805
IC910	8-759-604-47	IC M5F7905
IC920	8-759-604-52	IC M5F7915
IC930	8-759-604-02	IC M5278L56
IC940	8-759-001-02	IC MC74HC02N
J380	1-507-567-61	(950:Canadian,AEP,307ESD) ...JACK, PIN 1P (DIGITAL OUT)
J390	1-563-485-21	JACK, LARGE TYPE (HEADPHONES)
J401	1-566-817-11	JACK, PIN 4P (LINE OUT)
L381	*1-410-858-11	(950:Canadian,AEP,307ESD)..INDUCTOR 0UH
M251	A-4608-346-A	MOTOR ASSY, L
M252	X-4917-504-1	ASSY, MOTOR (SLED)
M253	X-4917-523-1	ASSY, MOTOR (SPINDLE)
PS205 ⚠	1-532-605-00	(950:AEP,307ESD:E)...LINK, IC
PS206 ⚠	1-532-605-00	(950:AEP,307ESD:E)...LINK, IC
PS901 ⚠	1-532-675-00	(950:AEP,307ESD:E)...LINK, IC
PS911 ⚠	1-532-675-00	(950:AEP,307ESD:E)...LINK, IC
PS920 ⚠	1-532-685-00	(950:AEP,307ESD:E)...LINK, IC
Q101	8-729-103-43	TRANSISTOR 2SB734
Q202	8-729-806-28	(307ESD)....TRANSISTOR 2SC3402
Q203	8-729-806-28	(307ESD)....TRANSISTOR 2SC3402
Q204	9-986-159-01	(307ESD)....TRANSISTOR 2SA1348
Q205	8-729-806-38	TRANSISTOR 2SC3399
Q206	8-729-806-28	TRANSISTOR 2SC3402
Q301	8-729-806-38	TRANSISTOR 2SC3399
Q400	8-729-107-99	TRANSISTOR 2SC3622A-K
Q401	8-729-107-99	TRANSISTOR 2SC3622A-K
Q402	8-729-107-99	TRANSISTOR 2SC3622A-K
Q500	8-729-107-99	TRANSISTOR 2SC3622A-K
Q501	8-729-107-99	TRANSISTOR 2SC3622A-K
Q502	8-729-107-99	TRANSISTOR 2SC3622A-K
Q520	9-986-159-01	TRANSISTOR 2SA1348
Q521	9-986-159-01	TRANSISTOR 2SA1348
Q522	8-729-806-28	TRANSISTOR 2SC3402
Q801	8-729-902-11	TRANSISTOR 2SC2021
Q940	8-729-103-43	TRANSISTOR 2SB734

Ref.No.	Part No.	Description			
R101	1-215-396-00	CARBON	91	5%	1/4W
R102	1-214-092-00	METAL	22	1%	1/4W
R103	1-249-417-11	CARBON	1K	5%	1/4W
R104	1-249-433-11	CARBON	22K	5%	1/4W
R105	1-249-421-11	CARBON	2.2K	5%	1/4W
R106	1-249-428-11	CARBON	8.2K	5%	1/4W
R107	1-215-450-00	CARBON	16K	5%	1/4W
R108	1-249-425-11	CARBON	4.7K	5%	1/4W
R109	1-249-425-11	CARBON	4.7K	5%	1/4W
R110	1-249-432-11	CARBON	18K	5%	1/4W
R111	1-249-432-11	CARBON	18K	5%	1/4W
R112	1-249-441-11	CARBON	100K	5%	1/4W
R201	1-249-393-11	CARBON	10	5%	1/4W
R203	1-249-393-11	CARBON	10	5%	1/4W
R205	1-247-881-00	CARBON	120K	5%	1/4W
R206	1-215-472-00	CARBON	130K	5%	1/4W
R208	1-247-881-00	CARBON	120K	5%	1/4W
R210	1-215-472-00	CARBON	130K	5%	1/4W
R211	1-249-437-11	CARBON	47K	5%	1/4W
R212	1-249-436-11	CARBON	39K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-423-11	CARBON	3.3K	5%	1/4W
R215	1-249-424-11	CARBON	3.9K	5%	1/4W
R216	1-249-393-11	CARBON	10	5%	1/4W
R217	1-249-438-11	CARBON	56K	5%	1/4W
R218	1-249-424-11	CARBON	3.9K	5%	1/4W
R219	1-249-424-11	CARBON	3.9K	5%	1/4W
R220	1-249-424-11	CARBON	3.9K	5%	1/4W
R222	1-215-472-00	CARBON	130K	5%	1/4W
R223	1-249-393-11	CARBON	10	5%	1/4W
R224	1-249-393-11	CARBON	10	5%	1/4W
R225	1-249-417-11	(307ESD)...CARBON	1K	5%	1/4W
R226	1-249-405-11	(307ESD)...CARBON	100	5%	1/4W
R227	1-249-429-11	(307ESD)...CARBON	10K	5%	1/4W
R228	1-215-486-00	CARBON	510K	5%	1/4W
R229	1-249-435-11	CARBON	33K	5%	1/4W
R230	1-215-479-00	CARBON	270K	5%	1/4W
R231	1-249-440-11	CARBON	82K	5%	1/4W
R232	1-249-429-11	CARBON	10K	5%	1/4W
R233	1-249-414-11	CARBON	560	5%	1/4W
R234	1-249-441-11	CARBON	100K	5%	1/4W
R235	1-215-434-00	METAL	3.6K	1%	1/6W
R236	1-249-433-11	CARBON	22K	5%	1/4W
R237	1-249-441-11	CARBON	100K	5%	1/4W
R301	1-249-405-11	CARBON	100	5%	1/4W
R302	1-249-441-11	CARBON	100K	5%	1/4W
R303	1-215-469-00	METAL	100K	1%	1/6W
R304	1-215-469-00	METAL	100K	1%	1/6W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-441-11	CARBON	100K	5%	1/4W
R307	1-249-429-11	CARBON	10K	5%	1/4W

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Ref.No.	Part No.	Description			
R308	1-249-417-11	CARBON	1K	5%	1/4W
R309	1-249-433-11	CARBON	22K	5%	1/4W
R310	1-215-493-00	CARBON	1M	5%	1/4W
R311	1-249-425-11	CARBON	4.7K	5%	1/4W
R380	1-215-394-00	(950:Canadian,AEP,307ESD) ...CARBON	75	5%	1/4W
R381	1-249-405-11	(950:Canadian,AEP,307ESD) ...CARBON	100	5%	1/4W
R382	1-249-417-11	CARBON	1K	5%	1/4W
R383	1-249-429-11	CARBON	10K	5%	1/4W
R384	1-249-429-11	CARBON	10K	5%	1/4W
R390	1-249-433-11	CARBON	22K	5%	1/4W
R391	1-249-433-11	CARBON	22K	5%	1/4W
R400	1-247-138-00	CARBON	2K	5%	1/4W
R401	1-247-714-11	CARBON	1.2K	5%	1/4W
R402	1-246-545-00	CARBON	1M	5%	1/4W
R403	1-249-425-11	CARBON	4.7K	5%	1/4W
R404	1-247-718-11	CARBON	2.7K	5%	1/4W
R405	1-247-718-11	CARBON	2.7K	5%	1/4W
R406	1-246-533-00	CARBON	330K	5%	1/4W
R407	1-247-704-11	CARBON	220	5%	1/4W
R408	1-247-710-11	CARBON	560	5%	1/4W
R409	1-249-417-11	CARBON	1K	5%	1/4W
R410	1-247-710-11	CARBON	560	5%	1/4W
R411	1-247-710-11	CARBON	560	5%	1/4W
R412	1-249-417-11	CARBON	1K	5%	1/4W
R413	1-247-704-11	CARBON	220	5%	1/4W
R414	1-247-710-11	CARBON	560	5%	1/4W
R450	1-249-435-11	CARBON	33K	5%	1/4W
R451	1-249-432-11	CARBON	18K	5%	1/4W
R453	1-249-402-11	CARBON	56	5%	1/4W
R500	1-247-138-00	CARBON	2K	5%	1/4W
R501	1-247-714-11	CARBON	1.2K	5%	1/4W
R502	1-246-545-00	CARBON	1M	5%	1/4W
R503	1-249-425-11	CARBON	4.7K	5%	1/4W
R504	1-247-718-11	CARBON	2.7K	5%	1/4W
R505	1-247-718-11	CARBON	2.7K	5%	1/4W
R506	1-246-533-00	CARBON	330K	5%	1/4W
R507	1-247-704-11	CARBON	220	5%	1/4W
R508	1-247-710-11	CARBON	560	5%	1/4W
R509	1-249-417-11	CARBON	1K	5%	1/4W
R510	1-247-710-11	CARBON	560	5%	1/4W
R511	1-247-710-11	CARBON	560	5%	1/4W
R512	1-249-417-11	CARBON	1K	5%	1/4W
R513	1-247-704-11	CARBON	220	5%	1/4W
R514	1-247-710-11	CARBON	560	5%	1/4W
R520	1-249-441-11	CARBON	100K	5%	1/4W
R521	1-249-441-11	CARBON	100K	5%	1/4W
R524	1-249-417-11	CARBON	1K	5%	1/4W
R525	1-249-413-11	CARBON	470	5%	1/4W
R526	1-249-413-11	CARBON	470	5%	1/4W
R527	1-249-413-11	CARBON	470	5%	1/4W
R550	1-249-435-11	CARBON	33K	5%	1/4W
R551	1-249-432-11	CARBON	18K	5%	1/4W
R553	1-249-402-11	CARBON	56	5%	1/4W
R801	1-249-422-11	CARBON	2.7K	5%	1/4W
R802	1-249-422-11	CARBON	2.7K	5%	1/4W
R803	1-249-422-11	CARBON	2.7K	5%	1/4W
R804	1-249-422-11	CARBON	2.7K	5%	1/4W
R805	1-249-422-11	CARBON	2.7K	5%	1/4W
R806	1-249-422-11	CARBON	2.7K	5%	1/4W
R807	1-249-422-11	CARBON	2.7K	5%	1/4W
R808	1-249-422-11	CARBON	2.7K	5%	1/4W
R809	1-249-424-11	CARBON	3.9K	5%	1/4W
R810	1-249-424-11	CARBON	3.9K	5%	1/4W

Ref.No.	Part No.	Description			
R811	1-249-424-11	CARBON	3.9K	5%	1/4W
R812	1-249-424-11	CARBON	3.9K	5%	1/4W
R813	1-249-424-11	CARBON	3.9K	5%	1/4W
R814	1-249-424-11	CARBON	3.9K	5%	1/4W
R815	1-249-424-11	CARBON	3.9K	5%	1/4W
R816	1-249-424-11	CARBON	3.9K	5%	1/4W
R817	1-249-427-11	CARBON	6.8K	5%	1/4W
R818	1-249-427-11	CARBON	6.8K	5%	1/4W
R819	1-249-427-11	CARBON	6.8K	5%	1/4W
R820	1-249-427-11	CARBON	6.8K	5%	1/4W
R821	1-249-427-11	CARBON	6.8K	5%	1/4W
R822	1-249-427-11	CARBON	6.8K	5%	1/4W
R823	1-249-427-11	CARBON	6.8K	5%	1/4W
R824	1-249-427-11	CARBON	6.8K	5%	1/4W
R825	1-249-432-11	CARBON	18K	5%	1/4W
R826	1-249-432-11	CARBON	18K	5%	1/4W
R827	1-249-432-11	CARBON	18K	5%	1/4W
R828	1-249-432-11	CARBON	18K	5%	1/4W
R829	1-249-432-11	CARBON	18K	5%	1/4W
R830	1-249-432-11	CARBON	18K	5%	1/4W
R831	1-249-432-11	CARBON	18K	5%	1/4W
R832	1-249-432-11	CARBON	18K	5%	1/4W
R833	1-249-429-11	CARBON	10K	5%	1/4W
R834	1-249-429-11	CARBON	10K	5%	1/4W
R835	1-249-429-11	CARBON	10K	5%	1/4W
R836	1-249-429-11	CARBON	10K	5%	1/4W
R837	1-249-429-11	CARBON	10K	5%	1/4W
R838	1-249-429-11	CARBON	10K	5%	1/4W
R839	1-249-441-11	CARBON	100K	5%	1/4W
R840	1-249-429-11	CARBON	10K	5%	1/4W
R841	1-249-429-11	CARBON	10K	5%	1/4W
R842	1-249-429-11	CARBON	10K	5%	1/4W
R843	1-249-429-11	CARBON	10K	5%	1/4W
R844	1-249-429-11	CARBON	10K	5%	1/4W
R845	1-249-429-11	CARBON	10K	5%	1/4W
R846	1-249-429-11	CARBON	10K	5%	1/4W
R847	1-249-429-11	CARBON	10K	5%	1/4W
R848	1-249-429-11	CARBON	10K	5%	1/4W
R900	1-249-520-11	CARBON	47	5%	1/4W
R901	1-249-417-11	CARBON	1K	5%	1/4W
R902	1-247-887-00	CARBON	220K	5%	1/4W
R903	1-249-405-11	CARBON	100	5%	1/4W
R904	1-247-708-11	CARBON	470	5%	1/4W
R920	1-249-516-11	CARBON	33	5%	1/4W
R930	1-249-516-11	CARBON	33	5%	1/4W
R940 ⚠	1-217-399-00	FUSIBLE	33	5%	1/4W
R941	1-249-424-11	CARBON	3.9K	5%	1/4W
R942	1-249-433-11	CARBON	22K	5%	1/4W
R943	1-249-429-11	CARBON	10K	5%	1/4W
R944	1-249-437-11	CARBON	47K	5%	1/4W
R945	1-247-891-00	CARBON	330K	5%	1/4W

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Ref.No.	Part No.	Description
RV101	1-228-995-00	RES, ADJ, METAL GLAZE 22K
RV102	1-237-194-11	RES, ADJ, CARBON 20K
RV103	1-237-194-11	RES, ADJ, CARBON 20K
RV104	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K
RV201	1-228-990-00	RES, ADJ, METAL GLAZE 1K
RV450	1-237-917-31	RES, VAR, CARBON 10K/10K
S251	1-571-300-11	SWITCH, ROTARY (LOADING IN/OUT)
S252	1-571-274-11	SWITCH, LEAF (LIMIT IN)
S380	1-571-083-11	(950:Canadian,AEP,307ESD) ...SWITCH, SLIDE (OUTPUT SELECTOR)
S801	1-554-303-21	SWITCH, KEY BOARD (1,A)
S802	1-554-303-21	SWITCH, KEY BOARD (2,B)
S803	1-554-303-21	SWITCH, KEY BOARD (3,C)
S804	1-554-303-21	SWITCH, KEY BOARD (4,D)
S805	1-554-303-21	SWITCH, KEY BOARD (5,E)
S806	1-554-303-21	SWITCH, KEY BOARD (6,F)
S807	1-554-303-21	SWITCH, KEY BOARD (7)
S808	1-554-303-21	SWITCH, KEY BOARD (8)
S809	1-554-303-21	SWITCH, KEY BOARD (9)
S810	1-554-303-21	SWITCH, KEY BOARD (10)
S811	1-554-303-21	SWITCH, KEY BOARD (11)
S812	1-554-303-21	SWITCH, KEY BOARD (12)
S813	1-554-303-21	SWITCH, KEY BOARD (13)
S814	1-554-303-21	SWITCH, KEY BOARD (14)
S815	1-554-303-21	SWITCH, KEY BOARD (15)
S816	1-554-303-21	SWITCH, KEY BOARD (16)
S817	1-554-303-21	SWITCH, KEY BOARD (17)
S818	1-554-303-21	SWITCH, KEY BOARD (18)
S819	1-554-303-21	SWITCH, KEY BOARD (19)
S820	1-554-303-21	SWITCH, KEY BOARD (20)
S821	1-554-303-21	SWITCH, KEY BOARD (▶▶)
S822	1-554-303-21	SWITCH, KEY BOARD (ERASE)
S823	1-554-303-21	SWITCH, KEY BOARD (COUNTINUE)
S824	1-554-303-21	SWITCH, KEY BOARD (SHUFFLE)
S825	1-554-303-21	SWITCH, KEY BOARD (PROGRAM)
S826	1-554-303-21	SWITCH, KEY BOARD (>20)
S827	1-554-303-21	SWITCH, KEY BOARD (CHECK)
S828	1-554-303-21	SWITCH, KEY BOARD (CLEAR)
S829	1-554-303-21	SWITCH, KEY BOARD (FILE)
S830	1-554-303-21	SWITCH, KEY BOARD (CUSTOM INDEX MODE)
S831	1-554-303-21	SWITCH, KEY BOARD (INDEX —)
S832	1-554-303-21	SWITCH, KEY BOARD (■)
S833	1-554-303-21	SWITCH, KEY BOARD (AMS ⏮)
S834	1-554-303-21	SWITCH, KEY BOARD (AMS ⏭)
S835	1-554-303-21	SWITCH, KEY BOARD (◀◀)
S836	1-554-303-21	SWITCH, KEY BOARD (DISPLAY)
S837	1-554-303-21	SWITCH, KEY BOARD (OPEN/CLOSE)
S838	1-554-303-21	SWITCH, KEY BOARD (AUTO SPACE)
S839	1-554-303-21	SWITCH, KEY BOARD (REPEAT)
S840	1-554-303-21	SWITCH, KEY BOARD (INDEX —)
S841	1-554-303-21	SWITCH, KEY BOARD (▶)
S842	1-554-303-21	SWITCH, KEY BOARD (❚❚)
S843	1-554-481-00	SWITCH, SLIDE (TIMER)
S990 ⚠	1-553-318-00	SWITCH, PUSH (POWER)
S991 ⚠	1-526-576-11	(307ESD:E)...SELECTOR, POWER VOLTAGE (VOLTAGE SELECTOR)
T380	1-421-946-11	(950:Canadian,AEP,307ESD) ...TRANSFORMER, PULSE
T990 ⚠	1-449-029-11	(950:US,Canadian,307ESD:US) ...TRANSFORMER, POWER
T990 ⚠	1-449-030-11	(950:AEP)....TRANSFORMER, POWER
T990 ⚠	1-449-031-11	(307ESD:E)...TRANSFORMER, POWER
T991	1-421-960-11	TRANSFORMER, LINE FILTER
X301	1-567-686-11	OSCILLATOR, CERAMIC, 4MHz
X520	1-567-926-11	VIBRATOR, CRYSTAL, 16.9344MHz
X801	1-567-192-11	OSCILLATOR, CERAMIC, 4MHz

ACCESSORY & PACKING MATERIAL

1-463-909-11	COMMANDER, REMOTE (RM-D650)
1-558-543-11	CORD, CONNECTION
3-703-390-01	(307ESD:US,950:US)...INSTRUCTION
3-769-608-11	(950:Canadian,AEP,307ESD:E) ...MANUAL, INSTRUCTION
3-769-608-21	(307ESD:US)...MANUAL, INSTRUCTION
3-769-608-41	(950:AEP).....MANUAL, INSTRUCTION
3-769-608-51	(950:US).....MANUAL, INSTRUCTION
4-922-517-11	(950).....INDIVIDUAL CARTON
4-922-517-21	(307ESD)...INDIVIDUAL CARTON
4-922-528-01	LID, BATTERY CASE, COMMANDER
*4-922-581-01	CUSHION

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

SONY

COMPACT DISC PLAYER
CDP-307ESD/950

Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

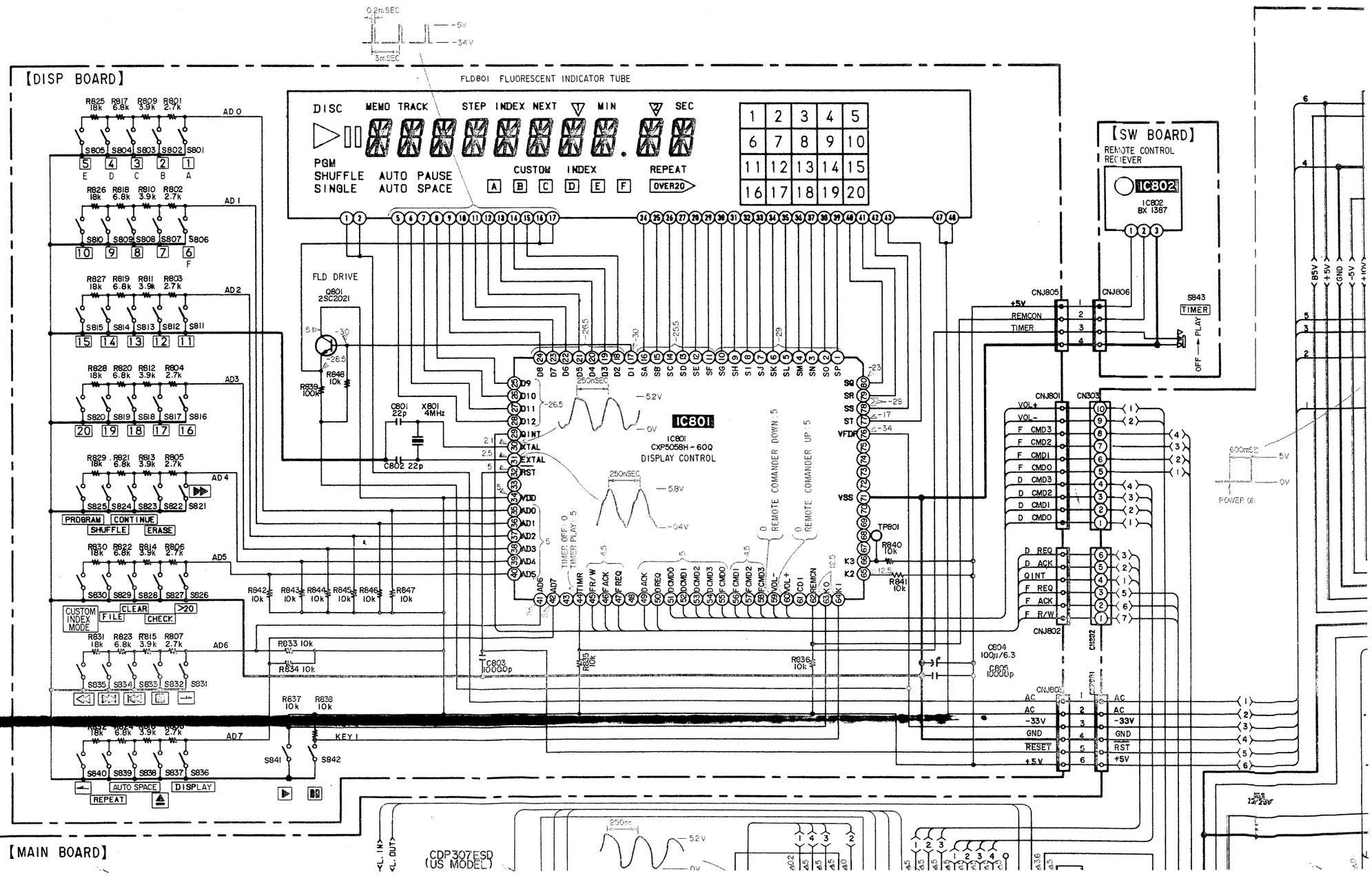
Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ bus.
- : B− bus.
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
  ( ) : PLAY
  < > : DIGITAL OUT SWITCH ON
- Voltages are taken with a VOM (50 kΩ/V). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : CD
  : digital out

- **Switch**

Ref. No.	Switch	Position
S251	LOADING IN/OUT	IN
S252	LIMIT IN SW	OFF
S380	OUTPUT SELECTOR	OFF
S801	1. A	OFF
S802	2. B	OFF
S803	3. C	OFF
S804	4. D	OFF
S805	5. E	OFF
S806	6. F	OFF
S807	7	OFF
S808	8	OFF
S809	9	OFF
S810	10	OFF
S811	11	OFF

Ref. I
S81
S81
S81
S81
S81
S81
S81
S81
S82
S82
S82
S82
S82
S82



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No.	Switch	Position
51	LOADING IN/OUT	IN
52	LIMIT IN SW	OFF
30	OUTPUT SELECTOR	OFF
01	1. A	OFF
02	2. B	OFF
03	3. C	OFF
04	4. D	OFF
05	5. E	OFF
06	6. F	OFF
07	7	OFF
08	8	OFF
09	9	OFF
10	10	OFF
11	11	OFF

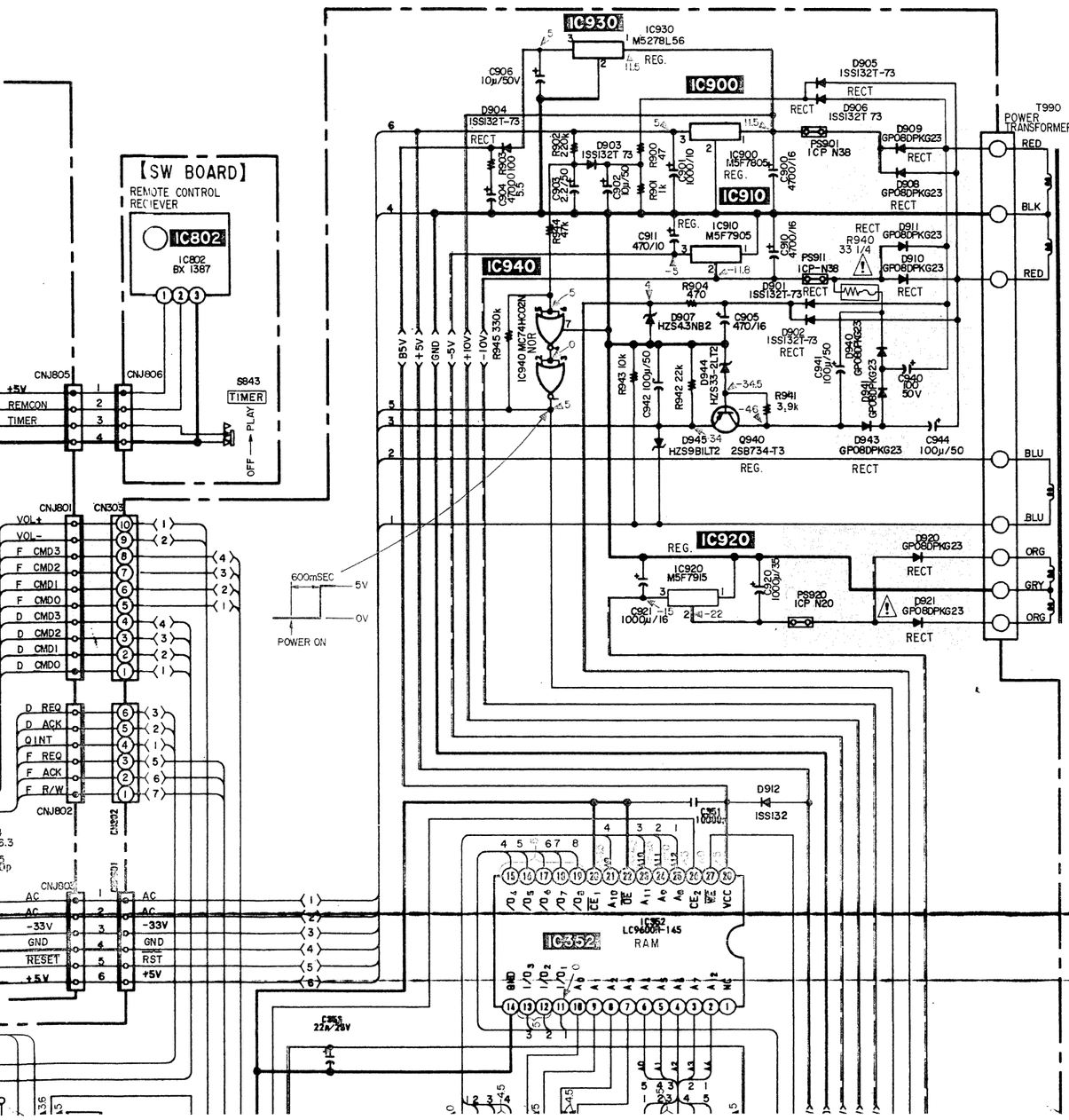
Ref. No.	Switch	Position
S812	12	OFF
S813	13	OFF
S814	14	OFF
S815	15	OFF
S816	16	OFF
S817	17	OFF
S818	18	OFF
S819	19	OFF
S820	20	OFF
S821	▶▶	OFF
S822	ERASE	OFF
S823	CONTINUE	OFF
S824	SHUFFLE	OFF
S825	PROGRAM	OFF

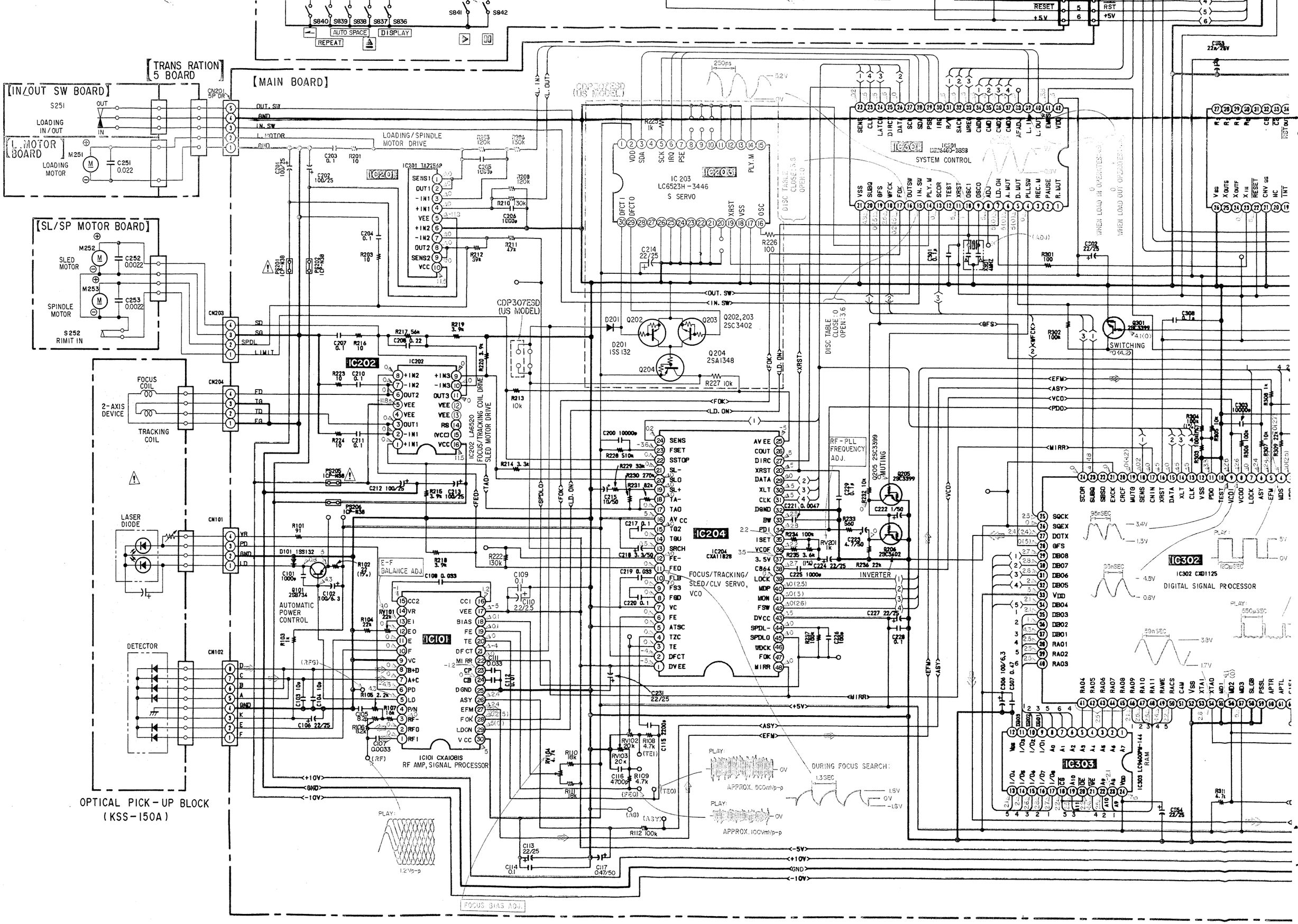
Ref. No.	Switch	Position
S826	>20	OFF
S827	CHECK	OFF
S828	CLEAR	OFF
S829	FILE	OFF
S830	CUSTOM INDEX MODE	OFF
S831	INDEX —	OFF
S832	■	OFF
S833	AMS ⏮	OFF
S834	AMS ⏭	OFF
S835	◀◀	OFF
S836	DISPLAY	OFF
S837	OPEN/CLOSE	CLOSE
S838	AUTO SPACE	OFF
S839	REPEAT	OFF

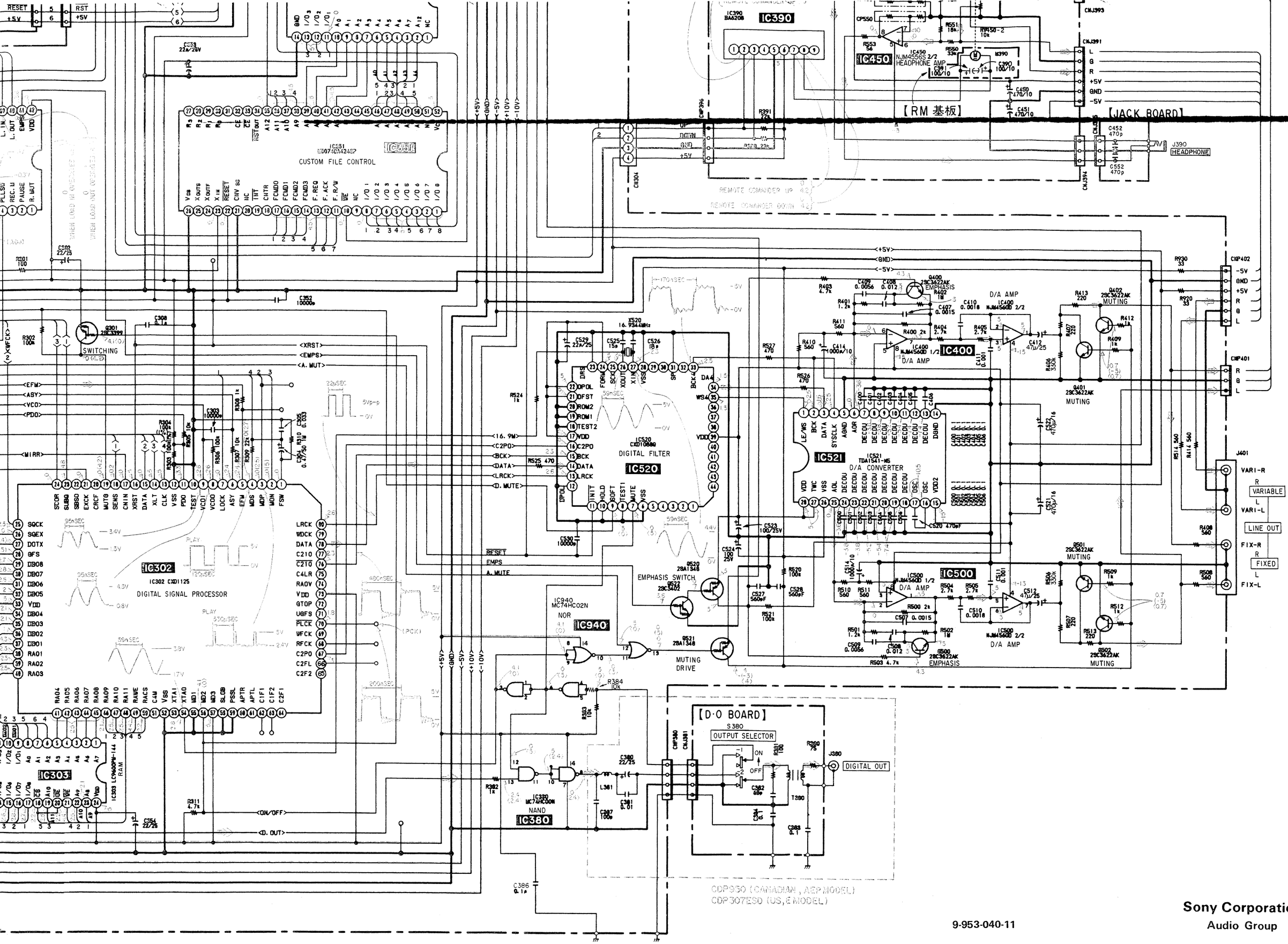
Ref. No.	Switch	Position
S840	INDEX —	OFF
S841	▶	OFF
S842	⏸	OFF
S843	TIMER	OFF
S990	POWER	OFF
S991	VOLTAGE SELECTOR	—

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

A B C D E F G H I




[MAIN BOARD]
[TRANS RATION 5 BOARD]
[IN/OUT SW BOARD]
[L MOTOR BOARD]
[SL/SP MOTOR BOARD]
CDP307ESD (US MODEL)
IC201 TA7356P
IC202 LA6520 FOCUS/TRACKING COIL DRIVE SLED MOTOR DRIVE
IC203 LC6523H-3446 S SERVO
IC204 CXA1182S FOCUS/TRACKING/ SLED/CLV SERVO, VCO
IC301 LC5400P-28S8 SYSTEM CONTROL
IC302 CXD1125 DIGITAL SIGNAL PROCESSOR
IC303 LC5400PM-144 RAM
IC101 CXA1081S RF AMP, SIGNAL PROCESSOR
OPTICAL PICK-UP BLOCK (KSS-150A)
LOADING/SPINDLE MOTOR DRIVE
AUTOMATIC POWER CONTROL
SWITCHING
INVERTER
RF-PLL FREQUENCY ADJ.
DISC TABLE CLOSE:0 OPEN:3.6
DURING FOCUS SEARCH:
FOCUS BIAS ADJ.
E-F BALANCE ADJ.
REPEAT
AUTO SPACE
DISPLAY
S840 S839 S838 S837 S836 S841 S842
LOADING IN/OUT
LOADING MOTOR
SLED MOTOR
SPINDLE MOTOR
RIMIT IN
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
LASER DIODE
DETECTOR
+10V
GND
-10V
-5V
+5V



9-953-040-11

Sony Corporation
Audio Group